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LATE NEWS.

As this section has been put on the press on Wednesday evening, any important news received thereafter, together with our report of the drug-sales held on Thursday, will be found in the coloured supplement.

Summary.

ONE way to carry on a cutting trade is told on p. 154.

WE reproduce on p. 146 a prescription of the celebrated Dr. Jameson.

THE oldest pharmacy in New York is W. J. Olliffe's. It is quite English (p. 149).

MR T. B. GROVES relates how water was analysed before the nineteenth century (p. 164).

MR. H. G. HOTCHKISS, the peppermint-distiller, is the subject of an illustrated note on p. 138.

WE give two engravings of the exterior and interior of Mr. Birks's pharmacy in Adelaide (p. 139).

MR. C. C. BELL writes entertainingly and quaintly regarding old English plant-names (p. 140).

SOME more papers for the British Pharmaceutical Conference are announced, bringing the number promised so far to twenty (p. 97).

THERE is a smack of the theatre about the article on "make up" by a provincial chemist, who gives his *confrères* the benefit of his experience (p. 141).

IN a lengthy article commencing on p. 126 we describe the history of Liverpool and its pharmacy, in view of the British Pharmaceutical Conference meeting.

WE have culled from several sources a few pieces of information regarding new apparatus for the retail pharmacist, and they are given with figures on p. 148.

THE British pharmacies which are illustrated and described in this number are those of Messrs. Dinneford, Leath & Ross, W. G. Cross & Son, and Mr. A. L. Laing's (p. 144).

AS no number of THE CHEMIST AND DRUGGIST would be complete without formulae, our readers will not be disappointed with this issue. A few are on pp. 144 and 147.

INTELLIGENT visitors to Paris must have noticed the herb-market there. The C. & D. interviewer has been renewing his acquaintance with it, and records a pleasant chat on p. 145.

THE Dublin Magistrate has found that it is an offence under the Sale of Food and Drugs Act to sell as linseed-meal a linseed-cake meal from which the oil has been withdrawn (p. 102).

MR. MAIR contributes a bright article on the Calcutta Botanic Gardens. It is illustrated with photographs of the banyan-tree avenue of palms, and a portrait of Dr. George King (p. 136).

MR. J. B. FRENCH, whose Major certificate bears the number 3, has been discovered by our Melbourne representative, and to him Mr. French has related many curious things which have happened during his eventful career (p. 143).

IN the series of interviews reported in the section beginning on p. 152 we tell how certain well-known proprietary articles came into existence. Messrs. George Barclay, J. Lawson Johnston, Brent Good, Colonel Chesebrough, J. T. Davenport, T. Holloway, John Wyld, G. Mellin, A. L. and L. Newbery, and Tebbutt are those who contribute to the series.

A PARIS correspondent with special knowledge deals with the question of the importation of foreign proprietary medicines into France, and recommends that the British and American Chambers of Commerce should be urged to bring the matter before the French Government, with the view of having facilities given by the Pharmacy Bill now before the Legislature (p. 172).

MR. WELLCOME (of Burroughs, Wellcome & Co.) has intimated his intention of establishing a Research Laboratory for the prosecution of scientific work in pharmacy. Dr. F. B. Power is to be its head, and Dr. Jowett, from the Pharmaceutical Research Laboratory, will be his chief lieutenant. Mr. Wellcome introduced Dr. Power to some medical and scientific friends at a dinner a few evenings ago (p. 163).



English News

The Editor is obliged to correspondents who send local newspapers containing items of interest to the trade. He will be further obliged if such paragraphs be marked in all cases.

Ships' Medicine Chests List.

The Marine Department of the Board of Trade has this week issued a revised medical scale for merchant-ships. There is practically no change in it except that instead of calling chloric ether by that name the Board now name it by the principal pharmacopoeial title, that of spiritus chloroformi.

Apothecaries' Freedom.

The Society of Apothecaries give notice that the Court propose this year to admit to the freedom of the Society a number (not exceeding ten) of its licentiates, on payment of the sum of 28*l.* each, which includes the stamp on admission. Particulars may be obtained at the Hall.

An Apothecaries' Car.

At a cyclists' carnival held last week at Southampton for the benefit of the charitable institutions of the town, the prize was offered for the best decorated tradesman's trolley. This was won by Messrs. Wride & Co., chemists. Their design represented an apothecaries' car. Each side was



covered with mahogany oilcloth, painted to represent drawers; above, on each side, was the counter; in front of the car was a large cheese-box, covered with red paper, and labelled "Family Pills"; and on either side two 10-gallon carboys. One side of the car was a set of bottles, empty and labelled, with measures, to represent the dispensing-department. On the other side was a boy with a large pill-mortar to provide the appropriate music, an old apothecary with long beard was dispensing, a girl was packing Epsoms, a man was rolling pills, and a microscope was on the counter. At the back of the car was a dental chair, and an old lady acted as patient. The dentist was present in a top hat, and the doctor held the head and administered the chloroform. The tooth-instrument was a pair of 3-foot gas-pliers. Immense merriment was occasioned by this exhibition. The bottles were all coloured by rinsing them in thin mucilage of tragacanth and then the dry colours shaken in. Gold and blue were used for drapery. Messrs. Wride consider that the exhibition was a profitable advertisement, besides helping a good object.

Still they Prosper.

On Saturday last the employés of Messrs. Burroughs, Wellcome & Co., including their travelling representatives in the United Kingdom, went to Dover to eat the annual

dinner and have a good time. The special train which took them to the famous port left Dartford at 7.25 and steamed to Cannon Street, where the City contingent was picked up; then a straight run took them to Dover by 10.40. It was a beautiful day, and the most was made of it by fixing the dinner at noon, after which some went to Canterbury, Folkestone, and other local spots by train, while others took steamboat trips and came back with faces like nor-west moons; took a cup of tea, and at 7.45 P.M. entered the train for the return journey to town. We need not tell how 500 men and women enjoyed themselves in such a district as Dover. It was at the dinner that interesting things were said which are worth recording. The Town Hall had been secured for the function, and the whole of the area and part of the gallery were laid with tables for 500 persons. Mr. Wellcome presided, and was supported on the right by Mrs. Clay Sudlow, Mr. Chune Fletcher, M.R.C.S., Dr. F. B. Power, Dr. H. A. D. Jowett, Mr. Charles White, and Mr. A. W. Gerrard; on the left by Mrs. Neil Campbell, Mr. Newton Crane, Mr. Neil Campbell (late of Colombo), Mr. Cantwell, and Mr. Coudrey (Adelaide). Mr. R. C. Sudlow occupied the vice-chair, and the rest of the tables were presided over by Mr. Searl and fifteen other gentlemen who hold responsible posts with the firm. After dinner Mr. Wellcome gave "The Queen," and "The Employés," referring in his speech on the latter to the changes which had occurred in his staff during the year, through death. There were, he said, many new faces present at the table, for the staff had been much strengthened, particularly with those skilled in the craft, and for the first time the travelling representatives from various parts of the country were all there together. Last year 417 employés were present, but that day there were over 500. After the cheers at this announcement had subsided, Mr. Wellcome stated that all that he could do for the welfare of his employés would be done. Mr. Sudlow responded in a fresh witty speech, from which, however, there were not absent a few pathetic sentences in reference to the late Mr. Kirby. He also predicted that although Burroughs, Wellcome & Co. had achieved success that would still go on, and it never would be said of them as was once said of Niagara, "Oh! what a falling-off was there!" Mr. Searl also replied on behalf of the Dartford contingent, concluding his remarks with a tabloid-parody of Longfellow's "Psalm of Life," which created much laughter. Subjoined is a sample:—

Tell me not in mournful numbers,
"High-class pharmacy's a dream,"
For the firm is dead that slumbers.
All our goods are what they seem.

* * * * *
Lives of chemists all remind us
We may crudest drugs refine,
And, departing, leave behind us
Tabloids on those shelves of thine;

Tabloids that perhaps another,
Burdened with a load of pain,
Some forlorn or sleepless brother,
Taking, may get well again.

Mr. Newton Crane, a well-known barrister, then gave "The Firm," or, as he preferred to put it, "Mr. Wellcome," and the toast was heartily drunk. Mr. Wellcome, in responding, spoke briefly and feelingly of his late partner, Mr. S. M. Burroughs, and remarked that although the progress of the business, both scientific and commercial, has been much in excess of the year before it, in the near future greater scientific advances as well as commercial would be made. He then toasted "The Fair Sex," thus giving Miss Leak, the lady superintendent of the Dartford factory, an opportunity of making one of the crispest cultured speeches, which was largely flavoured with those high social ideals characteristic of present-day women of influence. "The Press and Visitors" then had a turn.

Society of Chemical Industry.

The fifteenth annual meeting of this Society was brought to a close on Saturday by a dinner and smoking-concert at the Hotel Cecil, preceded by a reception by the President, Mr. Thos. Tyrer. The gathering numbered at least two hundred, and being larger than expected, an

"overflow dinner" was held in a second room. At the President's right at table was Dr. Ludwig Mond, at his left Mr. David Howard, and the company included Mr. John Glover, Sir Richard Pullar, Sir W. H. Bailey, Professor Tilden, the Consul-General for Japan, Dr. Macfarlane (Government Analyst of Canada), Professor Candler (President of the New York Section), Mr. B. E. R. Newlands (Chairman of the London Section), and Dr. Meissel. At the close of the dinner the gathering transferred themselves to a large smoking-room, where Mr. Edward Walford and the Guildhall Glee Singers played and sang, and Messrs. Charles Collette and E. J. Odell recited. The amateur reciters, in the persons of Dr. Lewkowitsch, of Manchester, and Mr. A. H. Allen, of Sheffield, delighted the audience, the one with a humorous recitation, the other with a mock-lecture, and between the items on the programme Mr. Tyrer briefly proposed "Success to the Society of Chemical Industry," while, later on, Mr. Newlands also said a few words. "Auld Lang Syne" brought the proceedings to a close, the unanimous opinion being that the fifteenth annual meeting would rank as one of the most successful in the history of the Society.

A Chlorodyne-habit Cure.

Patience Tullidge (59) came before the Recorder of Plymouth (Mr. H. M. Bompas, Q.C.) on July 17, and pleaded guilty to obtaining by false pretences several bottles of chlorodyne from Messrs. Balkwill & Co., chemists, of Old Town Street, in May last, upwards of twenty-one empty bottles having been found at her lodgings. The Recorder, in passing sentence, enlarged upon the evils of chlorodyne-taking. He knew that that preparation had great power over people, but this was no excuse for the offence. Prisoner appeared to him to be more like an insane person than a criminal, and it would be a kindness to prevent her taking any more of this stuff for a time. She would be imprisoned for one year, and he hoped it would be an effectual means of curing her.

Prescribing by Chemists.

At an inquest held at Brighton by Mr. Bush on July 17, respecting the death of Ronald Geo. Marsh, aged 15 months, the mother stated that after giving the child a dose of castor oil she took him to Mr. Brown, chemist, who gave her some medicine to stop the sickness. The same night the child had a fit, and on the following day died. Mr. Robert E. Brown, chemist, 9 Guildford Street, stated that the child was suffering great pain when it was brought to him. It evidently had intestinal trouble, and he gave the mother some medicine to give to it. He regarded it as within his province to prescribe for the child, and he did not think there was any danger. Mr. Blaker, surgeon, said that intussusception of the bowels was the cause of death, and, in reply to the Coroner, he added that, in his relief, rhubarb administered by a chemist in such a case would do harm. A doctor called in earlier would have understood what was the matter, and probably the child would have been sent to the hospital, where an operation would have been performed. A Juror: I take it, then, that what the chemist gave was improper medicine? The witness replied that the chemist no doubt acted with the best intentions. Mr. Brown was recalled, and the Coroner told him what Mr. Blaker had said. Mr. Brown replied that the mother had told him that the child was unable to retain any of the medicine which had been given to it. He would like to ask the doctor if he had at once diagnosed the disease. Mr. Blaker replied that he had not seen the child until it was practically *in articulo mortis*. Mr. Brown: You prescribed castor oil? Mr. Blaker: Yes. The Coroner observed that Mr. Brown had no doubt acted with the best intentions. The mother had previously taken the child to him, when he prescribed for it, and she doubtless thought it would be right for her to take it to him when it was again ill. The jury returned a verdict of death from natural causes.

Early-closing in Guernsey.

The principal tradesmen of St. Peter Port met latterly, and have decided to close their establishments at 1 o'clock on Thursdays, and also at 7 P.M. nightly, except Saturdays, till the end of November. At a meeting held last week it was stated that seven-eighths of the commercial community were in favour of the movement, but the chemists felt com-

pelled to abstain therefrom. An exactly corresponding condition prevails in Jersey.

One Chemist Libels Another.

At the London Sheriff's Court, Holborn, on July 17, before Mr. Under-Sheriff Burchell and a jury, the case of "Shephard v. Brown and Brown," an action for libel remitted from the High Court for the assessment of damages, came on for hearing. The plaintiff was Mr. William Arthur Shephard, chemist, of King Street, Hammersmith; and the defendants were Mr. William Brown, chemist, of Fulham and Edgware Road, and Mrs. Rose Brown. Plaintiff claimed 500*l.* damages. The libel complained of was written on a postcard, and ran as follows:—

Kensington.—Sir,—In the eyes of God Almighty you are worse than an extortioner, and, in 1 Cor., vi. 10, such an one shall not inherit the Kingdom of Heaven. Why are you thus trying to obtain money unlawfully from Mr. Brown? Do you suppose God will leave you unpunished; and you to stand up and preach! May God forgive you! Do you wish me to expose you to the chapel? With what measure ye mete out shall be meted to you, saith the Lord.—(Signed) R. BROWN.

The plaintiff gave evidence, and said that the libel had seriously injured his unimpeachable character.

Mrs. Brown: Before this man goes any further I should like to ask whether he is on oath, because you must remember he is a preacher. (Laughter.)

Plaintiff: Yes, madam, I am a preacher. (Renewed laughter.)

The Under-Sheriff: Yes, but that has nothing to do with the libel. (To Mrs. Brown.) You can ask the gentleman anything you like, and I should recommend you to question him on your legs, and not in a sitting posture, because the attitude towards the jury is decidedly more effective. (Loud laughter.)

Mrs. Brown: Yes, my lord, probably the attitude would be a little more effective, not to say commanding, towards this preacher. (Loud laughter.)

The Under-Sheriff: Please don't commence wrangling amongst yourselves.

Mrs. Brown: The plaintiff is a preacher, and he is standing before God.

The Under-Sheriff: You have been guilty of a very high-handed proceeding. I should advise you to make an ample apology to the plaintiff, and to pay the entire costs of the action.

Mr. Fraser: Do you still think that Mr. Shephard is worse than an extortioner in the eyes of the Lord?

Mrs. Brown: Yes, I am bound to think so.

The Under-Sheriff: Then I am very sorry for you. (Laughter.)

The jury assessed the damages at 40*l.*

The Mayor of Margate.

With the object of placing on record the valuable services rendered to the borough of Margate (Kent), the burgesses have placed a portrait in oils of Alderman E. S. Wootton, J.P., chemist and druggist, High Street, in the Town Hall. The portrait, which is the work of the late Mr. S. Sidley, R.B.A., of Victoria Road, Kensington, was unveiled on the evening of July 14, by the daughter of the present Mayor of Margate (Miss Coleman), the speakers including the Mayor (Alderman J. Coleman), Councillor Hosking, Councillor Brown, Alderman Leatham, Alderman Maltby, the Rev. J. James, Mr. A. Grant, Mr. Ind, and Alderman Wootton. A pleasing feature of the proceedings was the presentation to Alderman Wootton of a handsomely framed large-size photograph of the picture.

Distribution of Bonuses.

Messrs. Edward Cook & Co., of the East London Soap-works, Bow, invited the members of their staff, heads of departments and travellers to dine with them at the Holborn Restaurant on Saturday evening last, July 18. The tables were beautifully decorated and everything was well arranged. Mr. Edward Rider Cook, the first M.P. for West Ham, and the senior partner of this well-known firm, presided, supported by Mr. William Cook, Mr. Thomas Alexander Cook, Mr. Samuel Hall, Mr. Martyn Cook, and Mr. Godfrey Hall. Mr. Henry John Cook was unable to be present, being away in Switzerland. After an excellent dinner the Chairman expressed the pleasure with which he and his partners met

their staff; one of their representatives, he remarked, had travelled from the Continent to be present, that night, and some in foreign lands were of course unable to be present. He was pleased to have round him so large a gathering of trustworthy co-workers; some of them had been with the firm for more than forty years. By their loyal co-operation and steady services they had assisted the firm to achieve satisfactory results from last year's trading, and they now had the satisfaction of sharing some of the profits in bonuses among those who had assisted to earn them. After the usual toasts the remainder of the evening was spent in music and recitations.

British Pharmaceutical Conference.

The following are the titles of papers promised in addition to the eleven already announced:—

12. "Tablet-making at the Dispensing-counter," by Stewart Hardwick.
13. "Bael-fruit and its Preparations," by A. C. Abraham, F.I.C., F.C.S.
14. "Formaldehyde," by F. C. J. Bird.
15. "White Wine Vinegar," by Alfred H. Allen, F.I.C., F.C.S., &c.
16. "Condensed Milk," by Alfred H. Allen, F.I.C., F.C.S., &c.
17. "Belladonna-root Powder—Separated Siftings Compared," by R. H. Parker, F.C.S.
18. "Note on Concentrated Hydrobromic Acid," by Charles T. Tyrer, F.C.S.
19. "Note on Hypophosphorous Acid," by Charles T. Tyrer, F.C.S.
20. "Liquor Aurii et Arsenii Bromatis," by R. Wright, F.C.S.

Dr. Gordon Sharp's paper will be on "The Composition of Diphtheria Antitoxin Serum," in place of that on *Cactus grandiflorus*, previously stated. Mr. Elborne, B.A., F.L.S., F.C.S., alters the title of his paper to "Note on Potassa Sulphurata, Cotton-seed Oil, and the Pronunciation of Pharmacognosy."

County Council Contracts.—English v. Foreign Lime.

At the weekly meeting of the London County Council on Tuesday last, the adjourned report of the Main Drainage Committee with reference to the supply of 23,000 tons of lime for precipitation purposes at the Barking and Crossness outfall works was considered. The Committee recommended that the tender of Mr. L. Sommerfeld for the supply of 23,000 tons of lime at 11s 7d per ton be accepted. Mr. Emden proposed that the recommendation be referred back to the Committee. He objected to this contract on the ground that the lime was Belgian, and he thought the Council should, wherever possible, use articles of English manufacture. If this contract were given to the next highest tender, which was an English firm, it would only make a difference of about 40% on the whole order. Mr. Crooks seconded the amendment; but Mr. Cornwall, Chairman of the Committee, reminded the Council that in the specification they did not make any provision that other than English lime should be excluded, and the amendment to refer back was negatived by a large majority, and the recommendation was agreed to. The Committee reported that they had given directions for an advertisement to be issued inviting tenders for the supply of 5,250 tons of proto-sulphate of iron for precipitation purposes at the Barking and Crossness outfall works.

Medical Cigarettes.

At the Manchester Assizes just concluded, Eskell Davis (38), a traveller, was charged with having obtained money by false pretences from a number of local shopkeepers. The prisoner had induced them to take a quantity of stramonium cigarettes to sell on commission, representing himself as the agent of a number of firms in London and different parts of the country. It appeared that the cigarettes contained a medical compound, and were used by people suffering from bronchitis and asthma. The cigarettes had been submitted to Mr. C. Estcourt, the city analyst, for examination, and failing his report upon them the Judge said the inference was that the cigarettes had a commercial value. The prisoner was discharged.

Death of a Chemist's Wife under Chloroform.

On Tuesday evening Mr. E. B. Reece, coroner for Cardiff, held an inquiry into the circumstances attending the death of Mrs. Jessie Hicks, aged 32, wife of Mr. Wm. Thos. Hicks, chemist, Cardiff. Dr. Vachell gave the principal evidence.

He said he had attended Mrs. Hicks since she was a child. She was never very strong. Since her marriage she had been a great sufferer from asthma, bronchitis, and neuralgia. On July 14 Mrs. Hicks asked him to meet Mr. Pengelly at her house, for the purpose of having a tooth extracted. He attended her as requested, and administered nitrous oxide. The tooth was broken in the process of extraction. Gas was again administered, but without success. Gas was administered a third time; but they were again unsuccessful in extracting the tooth. Another attempt was made to extract the tooth under gas on July 16, but again without success. After this Mrs. Hicks complained of intense pain in the tooth, and said she could not sleep or take food, that she could not bear the pain any longer, and that something must be done. Mr. Pengelly, however, refused to give her the gas, and asked Dr. Vachell to administer chloroform. He (Dr. Vachell) felt that the administration of chloroform in her then weak condition was hazardous, but her sufferings were so great that he thought it necessary to run the risk. He attended at her house on the 20th about 4 P.M., and, having taken every precaution, he administered chloroform. Mrs. Hicks was very nervous, but she wished him to give her the chloroform. After she became insensible Mr. Pengelly proceeded with the operation, but was not successful, and was proceeding to make another attempt when he (Dr. Vachell) noticed that deceased began to change colour. He told Mr. Pengelly to desist, and then he attempted to restore deceased by means of artificial respiration. He sent for Mr. Hicks, who arrived. He continued his efforts about two hours. Deceased's breathing was restored intermittently about one and a half hour. The house-surgeon at the Infirmary was called in, and he injected ether and used a battery, but without effect. Mrs. Hicks died about one and a half hour after she began to change colour. In answer to the Coroner, Dr. Vachell said deceased suffered from a weak heart. It was his opinion that Mrs. Hicks died from failure of the heart while under the influence of chloroform. He had administered chloroform to deceased on two previous occasions without any serious effects. There was no doubt she was weakened by the sufferings she endured with her tooth. The Coroner said every possible care seemed to have been exercised in the administration of the chloroform, and no one was to blame. The jury returned a verdict that the deceased died whilst under the influence of chloroform.

Belladonna for Liquorice.

Sensational reports of the poisoning of a number of children by belladonna have appeared in the London papers this week, but the statements seem to have been greatly exaggerated. On Friday last a boy named Andrew Haynes, in the employ of Mr. F. W. Smith, surgeon, 40 Newington Causeway, while dusting the shelves of the surgery, picked up what he took to be pieces of liquorice. On Sunday afternoon, at his home in Hamilton Square, Kipling Street, Bermondsey, he brewed a decoction from the supposed liquorice, which he and several other boys drank. Shortly afterwards the children showed slight symptoms of poisoning, but were well enough to walk to Guy's Hospital, where they were found to have taken belladonna. They were treated with emetics. Only three of the patients were detained in the hospital on Sunday night, and they were discharged on Monday.

A Cycling Accident.

Mr. F. W. Kenrick, chemist and druggist, Horncastle, met with a painful accident at Woodhall Spa on Wednesday last week. He had ridden from Horncastle on a bicycle, and when near the railway station one of the pedals came off. Mr. Kenrick was pitched on his head and rendered insensible. He afterwards rallied, and although his face was lacerated and his arm and leg injured, he is progressing favourably.

Analysis of Drugs in the Isle of Wight.

The return of drugs analysed from the Isle of Wight from 1891 to 1896 stated that samples of laudanum, sal volatile, magnesia, quinine, Gregory powder, mercurial ointment, ipecacuanha, oil of juniper, rhubarb, and seidli's powder had been submitted to Mr. Otto Hehner. The Rev. Dr. Dabbs took exception to the return, and questioned whether the selection of drugs to be analysed was the wisest one.

Gregory-powder had been analysed, but carbolic acid and bicarbonate of soda had not. These articles were all important, and should have been analysed. He expressed his dissatisfaction at the way in which the Food and Drugs Act was administered in the Isle of Wight.

Unwelcome Visitors.

Considerable damage was done to the shop-front and stock of Mr. G. M. Cobb, chemist and druggist, Northgate, Halifax, on July 14. A horse which bolted dashed through Mr. Cobb's shop-window, smashing four plate-glass panes and doing considerable damage to the stock.

On July 15, in Narrow Street, Peterborough, a bullock, which was being driven to the cattle-market, became attracted by the display in the shop-window of Messrs. Boots, chemists, and in an instant he dashed through the plate-glass window and played havoc with the stock and fixtures.

Carbolic-acid Poisoning.

James Coggin (15), of Blackburn, who had been a great reader of "penny dreadfuls," is believed by a jury to have died from taking carbolic acid, a bottle which had contained some having been found under a board in his bedroom.

Enoch White, of Townsend, near Stroud, died on Saturday morning from carbolic-acid poisoning. It was believed that he was affected by business troubles. He was a member of the Stroud Rural District Council and chairman of the Parish Council of Randwick.

Mr. Edward Roberts, builder and slater, of Cefn Mawr, North Wales, was engaged doing some work on Monday evening at a house in Newbridge, Ruabon, when he took a drink out of a bottle which he thought contained herb beer, but which contained carbolic acid, which he used for disinfecting-purposes. He died a few minutes afterwards, suffering terrible agony.

Great Consumption of Oil. Lavand. Mitcham.

The Croydon Corporation Fire-brigade received a "call" early on Tuesday morning to Jackson's distilleries, in Mitcham Road. The distilleries are situated at the Croydon end of Mitcham Common, and upon arriving there the brigade found a large building, used as stores, alight, and the dwelling-house known as Mitcham Villa, in the occupation of Mr. Philip Lelasseur, of the firm of John Jackson & Co., was in imminent danger of becoming involved. A steamer from Mitcham had by this time arrived, and the Croydon men got to work with standpipes, but their efforts to save the stores were futile. A large quantity of essential oil of lavender, stated to be worth from 50s. to 6l. per lb., fell a prey to the flames. The official report states that a brick-and-timber building, 35 feet by 20 feet, consisting of two floors, was burnt out, together with the contents, and falling down. The damage is estimated at about 4,000l., which is covered by insurance.



Starch cream.

A case of alleged adulteration of sweet milk with starch was heard in the Dublin Police Courts on July 9. Sir Charles Cameron said the use of starch to give the appearance of more cream to the milk was happily rare of late years. He considered the admixture injurious to health. The Magistrate commented strongly on the case, and ordered the sample to be sent to Somerset House for official analysis, threatening, if the report agreed with Sir Charles's, to impose a fine of 50l.

An Irish Bethesda.

A curious custom was revived in Kerry a few days ago on the eve of St. John. A large number of people, consisting of the halt, the lame, and the blind, visited an ancient well near Tralee to do "rounds," bathe, and get cured of their ills. The treatment is considered beneficial to hypochondriacs.

A Judge on Medical Fees.

Recorder Falkner, of Dublin, has excited some animosity by a remark at the recent county sessions. Dr. Liston, a Balbriggan medical man, sued a widow for 6l. for professional attendance on her husband, who was fatally injured through a machinery accident, and who died shortly afterwards. A similar claim was made by Dr. Nolan. The defendant admitted having received 40l. compensation, but disclaimed responsibility for the medical treatment. Dr. Liston deposed that he paid in all twenty-eight visits, and treated the deceased for fractured limbs and a lacerated lung, liver, and bladder. The Recorder said the best professional skill was obtainable in England at the rate of fifteenpence per visit, and that he himself had only had to pay 9l. 18s. on one occasion when he broke his leg and was attended by one of the first doctors in the kingdom. He gave judgment for 3l. Dr. Liston, addressing his solicitor, said in Court, "Appeal, Mr. Walsh, appeal," and was summarily ejected from the Court by order of the Recorder, who left the Bench exclaiming, "Six guineas each, indeed, for two doctors that settled the poor man in four days!" The local Press has taken up the cudgels on behalf of the plaintiffs.

The Sale of Arsenic.

At the Killucan Petty Sessions, on Tuesday, Sergeant Connelly, of Mullingar, prosecuted Joseph Mangan, an assistant in Mr. Thomas O'Callaghan's drug-store, Killucan, for having sold arsenic to Patrick Kerrigan, without having it mixed with soot or indigo, as provided by statute. He was also charged with having sold arsenic to the same person without having duly registered such sale. The offence was alleged to have been committed on April 23. There was a difficulty about proving the first offence, and the defendant pleaded guilty to the second charge, but said he was busy on the day in question, and forgot to register the sale. The sergeant said the other entries in the book seemed to be well kept. The Bench inflicted a fine of 5s. and costs on the second charge, and dismissed the first case for want of evidence. The defendant might be fined 50l. The case was not a serious one, as no harm had come of it, the Chairman said, but the Magistrates would warn the defendant against a repetition of it. Mr. Thomas O'Callaghan, the proprietor of the store, was also prosecuted for a similar offence. It appeared from the sergeant's statement that Mr. O'Callaghan was in Dublin on this day. This case was dismissed, the Chairman remarking that he did not see how Mr. O'Callaghan could be punished for an offence that Mr. Mangan was convicted of.

Maxwell, Greer & Co. (Limited).

The firm of Maxwell, Greer & Co., Londonderry, has been registered as a private limited company, with a capital of 25,000l. They have added to their business a new department for compounding and dispensing medicines, which is under the management of Mr. Samuel S. Hall, member of the Irish Pharmaceutical Society, and qualified assistant of the Apothecaries' Hall.

A "Manufacturing Chemist" gets Three Years' Penal Servitude.

At the County Antrim Assizes, Belfast, before Chief Baron Pilles, Wm. Mackay was indicted that he, on December 16 last, did feloniously represent to the Manufacturing Jewellery Company, Birmingham, that he was trading as "Wm. Mackay & Co.," manufacturing chemists and general merchants, with works at 10 Howard Street, and offices at 15½ Rosemary Street, Belfast, with branch offices in Liverpool, and obtained five watches and nine rings with intent to defraud them. Prisoner was further charged with, having, on December 24 1895, obtained by false pretences from the same company one lever watch, and other jewellery at various other dates in 1895 and 1896. The prisoner submitted the following advertisement, which he had inserted

in certain papers to show that he was carrying on a *bona fide* business:—"A splendid line for chemists. Revolution in ice-cream making. Mackay's instantaneous perfection ice-cream powder, prepared from desiccated real eggs and milk (twenty assorted flavours and colours), produces at the first attempt delicious ice cream in a few minutes. Elegantly packed in $\frac{1}{4}$, $\frac{1}{2}$, and 1 lb. packets for family use, and in 7 and 14 lb. air-tight tins for clubs, hotels, and other large consumers. Retail price, 1s. per lb.; sample lb, carriage paid, 15 stamps. Post sample and wholesale prices free. Family freezers and freezing-powders (for hot climates) supplied to order. Handsome show cards, labels, and handbills supplied. Sole proprietors, inventors, and manufacturers, Wm. Mackay & Co., Avonbeg Street, Belfast." It was proved, however, that the jewellery was pawned by the prisoner, and he was found guilty. Several previous convictions for fraud were reported, and he was sentenced to three years' penal servitude.

The Liability of Chemists.

In the Record Court, Cavan, Judge Madden reversed the decision of the Quarter Sessions' Judge in the case where two farmers claimed damages for the loss of their horses who had drunk water containing arsenic in the yard of Mr. Armstrong, chemist. Judge Waters dismissed one case, and adjourned the other pending the result of an appeal. Judge Madden now gave a decree for 15%, with costs and expenses.

French News.

(From our Paris Correspondent.)

RAILWAY ACCIDENT.—A well-known chemist, M. Barthe, technical director of the Hautmont chemical-works, near Lille, was killed by an express train a few days ago, while returning from the Hautmont railway-station, where he had been to accompany a friend.

ARTIFICIAL DIAMONDS.—M. Girard, chief chemist of the Paris Municipal Laboratory, has traced the presence of diamond-powder in the residues of carbide of calcium after it had been used for making acetylene gas. He considers that the formation of these diamonds is due to the condensation of carbon vapours in the melted mass of carbide of calcium.

PHOTOGRAPHY EXPERIMENT.—At the last meeting of the Academy of Sciences Professor Lippmann referred to an interesting photographic experiment made by M. Pellat. It consisted in placing an iron object on a photographic plate, and leaving them in contact for several months in a dark room. On developing the plate the object was found to be reproduced thereon. M. Pellat thinks this reproduction may be attributed to vapours which the metal probably gives off, and which act on the plate in course of time. Another theory is that the radiations of the metal act on the sensitiveness of the plate.

A SCIENCE MUSEUM.—Since Wednesday of last week an International Museum of Arts and Sciences has been thrown open to the public at the Trocadéro, Paris, although the rooms are not yet completely furnished. On the ground floor is a bacteriological room, where photographs and drawings of Pasteur's work and that of his successors are shown. Optical instruments, &c., are also on view. On the first floor another room is entirely devoted to Pasteur. Portraits of the savant are exhibited, as well as some of the instruments that he used for his discoveries. Photographs of the invisible, by the Röntgen rays, are likewise shown.

SUBNITRATE OF BISMUTH AS AN ANTISEPTIC.—M. Carles, of Bordeaux, is making an effort to reinstate subnitrate of bismuth in the same favour as an antiseptic that it formerly held, other substances, such as salicylate of bismuth, naphthol, &c., having of late years taken its place. He refers to subnitrate of bismuth as a powerful microbicide, and attributes to it the property of preserving medicinal preparations that otherwise deteriorate rapidly. It is also specially recommended by him as an antiseptic for dressing wounds and the bactericidal action of the subnitrate is mentioned as

its principal virtue for treatment of gastro-intestinal complaints. M. Carles says that if physicians will only take the trouble to compare properly-made subnitrate of bismuth with salicylate he is convinced that much of the popularity of the latter salt will be lost.

DEATH OF M. JULES FERRÉ.—French pharmaciens have to deplore the loss of one of their leading men by the death, at the age of 63, of M. Jules Ferré, President of the French Syndical Chamber of Manufactures of Pharmaceutical Products. The deceased pharmacien was born at Le Mans in 1833, where his early studies were commenced, and he came to Paris to take his diploma as pharmacien de première classe. He was the founder and Vice-president of the Union des Fabricants, organised for the protection of trademarks, &c., and he was also a member of the leading societies in Paris connected with pharmacy. During the war of 1870 he was appointed chief pharmacist of the Press ambulance, and acted in a similar capacity during the Commune. His devotion in this connection secured for him the Cross of the Legion of Honour. Besides being a successful pharmacist he was also socially very popular.

THE PHARMACIE CENTRALE DE FRANCE.—In order to celebrate the occasion of his nomination as Chevalier of the Legion of Honour, M. Charles Buchet recently entertained his friends, the employés of the Pharmacie Centrale de France, at a banquet. There were upwards of 450 persons present, including many well-known pharmacists. The French Minister of Commerce was represented by M. Duval, a pharmacien deputy. M. Julliard, President of the Council of the Pharmacie Centrale, presided at the function, and greatly entertained the guests by his humorous discourses. He referred to the honour conferred on M. Buchet as an act of the greatest justice, which is much esteemed by French pharmacists as a body. M. Julliard invited those present to join him in a toast "To the distinguished pharmacist who had merited the award, and to the equitable Minister who had given it." M. Duval then, amidst great applause, handed M. Buchet the Cross of the Legion of Honour in diamonds, subscribed for by the employés of the Pharmacie Centrale. M. Duval completed this part of the ceremony by a complimentary speech in which he referred to the almost unique position now held by the Pharmacie Centrale. The next speaker was M. Fumouze, and he gave an interesting resumé of M. Buchet's pharmaceutical career. Another pharmacien deputy and a former employé of the Pharmacie Centrale, M. Bachimont, also spoke, as well as M. Scenen, Director of the Lyons branch of the Society, and some verses, composed for the occasion by M. Georges le Dru, the poet-traveller of the house, were recited by the author. M. Charles Buchet afterwards made a suitable reply, thanking his guests for their kind words of sympathy. He paid a tribute to the zeal of the staff, making special mention of his assistant-director, M. de la Calle.

A PHARMACIST AS NEWSAGENT.—Jagersfontein, in the Orange Free State, was in a ferment of excitement when the news spread of Dr Jameson's foray. But while Europe had to wait days for news dribbling belatedly by way of Capetown, Jagersfontein, blessed with a citizen who knew how to take occasions by the hand, rejoiced in a constant flow of telegraphic news hot from Bloemfontein, the capital of the Free State. The citizen was Pharmacist N. Coaker, the proprietor of the Iron Apotheek, whose shop during the first week of the year was besieged by Jagersfontein's eager for news. "Feeling that there was something in the air," says Mr. Coaker, "and knowing that private wires would not pass because of the holidays, I arranged with the authorities for a constant supply of telegrams to be sent to me from Bloemfontein." Mr. Coaker then opened a subscription-list which was well taken up, and as the telegrams came in he had them set up in type and distributed to the subscribers. On Saturday night, January 3, the Iron Apotheek was invaded by a crowd of townspeople and miners, to whom the English clergyman of Jagersfontein read out the news hot from the clicking instrument. From Mr. Coaker's statement that there has been a slight run on roode lavendel (red lavender) and a big run on whisky, we conclude that the venture was a profitable extra.

Legal Reports.

LIEBIG'S EXTRACT OF MEAT COMPANY (LIMITED) v. THE CHEMISTS' CO-OPERATIVE SOCIETY (LIMITED).

THIS case was mentioned to Mr. Justice Kekewich in the Chancery Division on July 11. His Lordship had granted an injunction restraining the defendants from selling Liebig's extract of meat in wrappers so designed as to be likely to mislead purchasers into the belief that they were buying plaintiffs'. Three instances were also proved of actual passing off. The defendants now stated that they intended to appeal upon the question of the wrapper, but not as to the other part of the case, and they asked for a stay with regard to the wrapper pending the appeal, upon the ground that any other judge might come to a different conclusion upon the question of similarity. Upon the defendants undertaking to keep an account of every pot sold in the present wrapper, and to give notice of appeal at once, and to duly prosecute the same, his Lordship acceded to the application, but ordered the defendants to pay the costs.

COUNTY COURT CASES.

A GELATINE CASE.—SALE BY SAMPLE.

In the City of London Court, on Monday, before Mr. Commissioner Kerr, Mr. John Kirtley, carrying on business as A. P. V. Firminger & Co., gelatine merchants, 32 Fenchurch Street, E.C., sought to recover from Messrs. F. B. Costa & Co., 10 Ryder Street, St. James's, the sum of 39*l.* 19*s.* 5*d.*, as damages for an alleged breach of contract. Mr. Firminger was counsel for the plaintiff, and Mr. Stephen Lynch for the defendants.

The plaintiff, it appeared, bought from sample eighteen cases of gelatine, each containing fifty-six 1-lb. packets. They received an invoice, and written upon the side of the document was an intimation that no claim would be entertained unless it was made within ten days of the date of delivery. As a matter of fact, the plaintiff never saw that stipulation. If that term was to be regarded as a part of the contract, the plaintiff said it had been waived by the defendants' subsequent conduct in the matter. The plaintiff had declined to keep the eighteen cases, because they were quite inferior to the sample upon which the sale took place. He had been unable to re-sell the gelatine, and he claimed for the full price. The damage consisted of wet.

Mr. Lynch said they gave the plaintiff ten days in which to reject the gelatine. They did not complain, but paid for the gelatine. Then the defendants paid their sellers for the goods. Business would soon come to a standstill if that sort of thing were tolerated. The plaintiff had had a reasonable opportunity to inspect, and had not done so. That was not the defendants' fault. Evidence as to the quality of the gelatine was given, and

Mr. Costa, the defendant's son, denied in the most positive way that that which the plaintiff produced as the sample was in fact the sample. He sold the gelatine to the plaintiff at 11*l.* per lb., and what was now alleged to be the sample was worth 1*s.* 5*d.* per lb. He would have been very foolish to enter into such a bargain. In cross-examination he said that he unfortunately had not any of the original sample by him with which to compare the sample which was now put forth. He always cleared out his samples as soon as the transaction was at an end, as he supposed this one was. He declined to say where he bought the gelatine.

Mr. Commissioner Kerr said he must nonsuit the plaintiff. He could not convict the defendant of a falsehood. The plaintiff was making a very serious charge of fraud against the defendant. He could have the case tried before a jury by bringing another action, if he was so inclined. He nonsuited the plaintiff and allowed defendants their costs.

THE ELECTRIC-PLASTER COMPANY.

In the Manchester County Court, on July 17, before Mr. Registrar Atkinson, a number of chemists in various parts of the country were summoned by Mr. D. Cooper, incorporated accountant, of 134 Deansgate, Manchester, as liqui-

dator of the above company, in respect of goods supplied. The company carried on business at 101 Piccadilly, Manchester, and, in addition to "electric plasters," also supplied druggists' sundries. The defendants were those customers who, after repeated applications from the liquidator, had failed to pay their accounts. There was no point of law involved, and the cases were such that the Registrar was able to dispose of them without reference to the Judge. In only a few instances was there an appearance. One defendant objected to pay on the ground that the goods were supplied on "sale or return." To this the Registrar replied that the defendant had had the goods twelve months, and that, as he did not return them when application was made for payment, he must be held liable. The usual orders for payment were made.

LITIGATION REGARDING A PROPRIETARY OINTMENT.

IN the Court of Session, on July 16, Lord Low heard evidence in the action by the Porteous Vegetable Ointment Company, of which Alexander Porteous, leather-merchant, Rose Street, Edinburgh, is a member, against Archibald Porteous, Abercromby Place, Stirling. Details of the claim were published in THE CHEMIST AND DRUGGIST of June 6 last. The plaintiff, who claims to be the rightful possessor of the property in the ointment known as "Porteous's Vegetable Ointment," seeks to have the respondent, a brother of Alexander Porteous, interdicted from manufacturing and selling any ointment under that name, and from advertising that he is the sole proprietor or possessor of the original recipe of such ointment.

Alexander Porteous stated that the original inventor and maker of the ointment was his grand-uncle; that on his death witness's father acquired the right to the recipe and the goodwill; that from 1858 to 1867 witness's father and uncle, who were in partnership as leather-merchants, made and sold the ointment; that the uncle retired from the business, and that when he died in 1871 he (witness) took over the business, including the right to make and sell the ointment; that he continued to do so till July, 1895, when he sold the recipe and goodwill to a syndicate of which he was a member.

Among the witnesses called for the complainer was Robt. Dick, a partner in the firm of Duncan, Flockhart & Co., who said he knew the ointment called Porteous's vegetable ointment, and had known it in the trade for nearly thirty years. He had been more than thirty years in the trade. His firm dealt with the firm of Porteous & Son, leather-merchants, Rose Street, and purchased the ointment from them. He never knew of the ointment being manufactured by anyone but the firm in Rose Street, and he never heard of anyone else making it. He would think that if the respondent held himself out as the only one in possession of the original recipe, and at the same time used the well-known trade name, that would induce the belief that the ointment he produced was of the complainer's manufacture. Anyone selling the respondent's boxes might deceive the public into the belief that they were buying Porteous's vegetable ointment. Cross-examined, witness said he should think the name of Porteous's vegetable ointment was known in Glasgow and pretty well all over Scotland. His firm got orders from all over the country for it.

John Robertson, chemist and druggist, North West Circus Place, Edinburgh; James M. Hardie, pharmaceutical chemist, Dundee; Peter Boa, pharmaceutical chemist, George Street, Edinburgh; George H. Lard, chemist, Queensferry Street, Edinburgh; and John Gray, of the firm of Davidson & Gray, chemists, Dundee, gave similar evidence. J. Rutherford Hill, Assistant-Secretary of the Pharmaceutical Society, also stated that the only parties who manufactured the ointment, so far as he knew, were the complainer's firm, and that the respondent's boxes might be apt to mislead the public, although chemists would know the difference between them and those of the complainer's quite well.

The respondent produced evidence to the effect that other members of the family had made the ointment in past times—notably that Duncan Porteous made and sold it in his own name sixty or seventy years ago. He was a publican at Todhills, Dalkeith. He got the original recipe from a lady who lived next to him. No one else made the ointment at that

time. This was from the evidence of an old lady, aunt to the principal parties in this action. She alleged that her uncle, the original Alexander, was troubled with pimples on his face, and his brother Duncan used to give him the ointment for it. He came so often that at last Duncan gave him the recipe. But he also gave the recipe to a sister of this witness, who died about a year ago. Other evidence was called, the general effect of which was that the ointment had been made by various members of the family, and the respondent asserted an equal right with his brother to the business.

The decision of the Court was reserved.

SALE OF FOOD AND DRUGS ACT.

LINSEED-MEAL.

MR. SWIFTE gave judgment in the case in which Mr. Samuel Curham, of South Richmond Street, Dublin, was summoned for selling $\frac{1}{2}$ lb. of linseed-meal which, it was alleged, was adulterated with 10 per cent. of farinaceous matter, and only contained a fourth of the oily matter which it should have contained according to the British Pharmacopoeia. Mr. Swifte held that the linseed-meal sold by the defendant was a "drug" within the meaning of the Act, and that the charge had been made good by the prosecution, and he imposed a fine of 10s. There was no doubt, he said, that the defendant had sold the meal in the precise condition in which he had got it. It was admitted by the prosecution that he was a highly respectable man, who would not have adulterated the article himself. This, however, was not an answer in law to the charge.

PROSECUTIONS UNDER THE DENTISTS ACT.

TEMPLAR MALINS, 107 Woodville Road, N. A. Givovic, 66 Queen Street, and G. F. Bamber, 23 Castle Road, were summoned before the Cardiff Stipendiary (Mr. F. T. W. Lewis), on Tuesday, for illegally using descriptions implying that they were registered under the Dentists Act. In the case of the defendant Malins, it was alleged that he used the description "Popular Dentistry"; that of Bamber "Artificial-teeth Manufacturer"; and that of Givovic "American Artificial-teeth Company." Mr. Belcher, solicitor, who appeared to prosecute, said just before entering the court he received a telegram from Mr. A. Jackson, who had been instructed to defend in two of the cases, stating that he was confined to bed by the doctor's orders, and asking him to adjourn the cases. Mr. Lewis Morgan, who appeared in the third case, was quite willing to consent to an adjournment, particularly as the same question was involved in all three cases. The Stipendiary adjourned the summonses till next Tuesday.

Bankruptcies and Failures.

Re HERBERT EDWARD WILLIAMS, Swansea, Chemist and Druggist.

THIS bankrupt came up for his public examination at the Swansea Bankruptcy Court on July 16. In answer to the Official Receiver, he stated that he commenced business at Smethwick, near Birmingham, in 1888, with a capital of about 250*l.*, which he borrowed from his father-in-law. He denied that this money was handed to him as a wedding gift. He gave no security for it, however. He had since paid some of the money back both by cheque and cash. He gave 225*l.* or 230*l.* for the business, and the remainder was spent in furniture. About November, 1889, he disposed of the business, losing 10*l.* by the transaction. He then took a shop in Wind Street, Swansea. He paid 425*l.* to go in, his father-in-law lending him a further sum of 200*l.* Three years ago he opened another shop in Fabian Street, Swansea. He bought new stock for it, and engaged as his manager a Mr. Parker. About a month ago he assigned the lease and stock in this shop to his manager for 75*l.*, in addition to 21*l.*

money lent. The stock was not worth more than 96*l.* He did not receive the 75*l.* from Mr. Parker, as that amount was due to him as salary. He also turned over the book-debts to Mr. Parker for 15*l.* That money had gone in payment of the costs of his petition. The settlement of the furniture on his wife had been spoken of for years, but it was not done till the last minute. His deficiency amounted to 676*l.* 9*s.* 11*d.*, of which 500*l.* was owing to his father-in-law. His assets were 81*l.* 2*s.* 9*d.* He was not aware of his insolvency till he was pressed by his creditors, just before he filed his petition. He had since ascertained, however, that he was insolvent twelve months ago. In answer to Mr. Naylor, who appeared for him, debtor stated that if he could have sold his business in Wind Street for 300*l.* he would have been able to go on, because his father-in-law would not have pressed for the payment of his debt. He considered that the goodwill of that business was worth 100*l.*, though it had not paid latterly. The Registrar said there could be no goodwill unless the business was paying. The examination was adjourned.

Re G. E. HOPE PEARSE, Fenchurch Street, E.C., late Managing Director.

THE public examination of this debtor was held at the London Bankruptcy Court on July 17. The bankrupt was formerly manager of the Exporters' Agency (Limited), Fenchurch Street. The particulars of his failure have already been reported. His principal asset was shares in various companies to the value of 14,834*l.* The bankrupt was allowed to pass his examination upon accounts showing total liabilities 13,563*l.*, of which 12,116*l.* are expected to rank against assets 15,783*l.*

Re HELEN PUTZ, 16 and 17 Great St. Helens, E.C., Chemical and General Merchant, trading as F. J. Putz & Co.

THIS debtor filed her petition at the London Bankruptcy Court on June 25, and the first meeting of her creditors was held on July 20 before Mr. E. L. Hough (Official Receiver).

The Chairman reported that the accounts showed assets 571*l.*, consisting of cash 235*l.*; stock-in-trade, 196*l.*; office furniture, 15*l.*; good book debts, 84*l.*; and bad and doubtful debts estimated to produce 40*l.* There were unsecured debts, 1,484*l.*; preference claims, 14*l.*; and certain liabilities under an indemnity given against the costs, charges, and damages in thirty-three actions brought by the Incandescent Gas Light Company (Limited) against the debtor and a number of other creditors. The household furniture was the property of the children, who succeeded to it from their late father. The business was commenced by Mr. F. J. Putz about forty-five years ago. That gentleman died intestate in February, 1892, when the debtor took over the business and continued it under the same style. At first she employed a manager, but during the last two years the debtor has personally conducted the business. One of the branches of the business was buying and selling incandescent gas lamps and fittings. At the end of last year the Incandescent Gas Light Company (Limited) commenced proceedings to restrain the debtor from selling the lamps, which they alleged were an infringement of their patents, and, as she was not in a position to contest the action, Mr. R. J. Eiffe, of Hamburg, formed a limited company, under the style of the "Champion Incandescent Gas Lamp Company (Limited)," for the purpose of taking over her stock and goodwill of that branch of the business. The company did not go to allotment, and voluntary liquidation was resolved upon in June last, the debtor being appointed liquidator. The debtor attributes her failure to the action above mentioned. Prior to June, 1895, the business was carried on at 21 Mincing Lane, and was in that month removed to Great St. Helens.

In the absence of any offer, Mr. Ernest Cooper (Cooper Brothers), chartered accountant, George Street, Mansion House, E.C., was appointed trustee to administer the estate in bankruptcy, with the assistance of a committee of inspection to be appointed. The public examination is fixed for August 7.

Deeds of Arrangement.

Birchley, Samuel Thomas, 58 Regent Street, Cheltenham, dentist. Trustee, Charles F. Pugh, 56 Regent Street, Cheltenham, accountant. Date, July 9; filed, July 14. Liabilities unsecured, 374*l.* 7*s.* 8*d.*; estimated net assets, 150*l.* The following are scheduled as creditors:—

	£	s.	d.
Barker, W. H., Cheltenham	12	0	0
Butler, J. L., Cheltenham	30	0	0
Gate, F. S., Cheltenham	10	0	0
Gooding, J. C., Cheltenham	11	0	0
Harper, T. W. H., Cheltenham	10	0	0
Lance & Co. (Limited), Cheltenham	18	0	0
Lewis, H., London	38	0	0
Margrett, H. G., Cheltenham	28	0	0
Marshall, —, Cheltenham	12	0	0
Norman & Sawyer, Cheltenham	12	0	0
Prie & Parker, Cheltenham	19	0	0
Shirer & Haddon, Cheltenham	10	0	0
Stallard, T. G., Cheltenham	15	0	0

Fell, Frederick William, 83 Brunswick Street, and 28 Great Avenue Street, Preston, wholesale druggist. Trustee, William I. Swarbrick, Preston, chartered accountant. Dated, July 8; filed, July 14. Liabilities unsecured, 160*l.* 19*s.* 9*d.*; estimated net assets, 56*l.* 19*s.* The following are scheduled as creditors:—

	£	s.	d.
Bleasdale & Co., York	11	0	0
Clay, Dod & Co., Liverpool	14	0	0
Harker, Stagg & Morgan, London	12	0	0
Hayden, Charles, St. Helens	30	0	0
Petremant, A., Manchester	12	0	0

Gazette.

PARTNERSHIPS DISSOLVED.

Manners, W. H., and **MacBean, D. F.**, surgeons and general medical practitioners, Blyth, Northumberland, under the style of Manners & MacBean.

Strickland, E. J., **Fawcett, W. C.**, and **Downey, T.** (as trustees and executors of Oliver Strickland, deceased), and **Holt, J.**, grocers, chemists, and wine and spirit merchants, Yarm, Yorkshire, under the style of Strickland & Holt.

THE BANKRUPTCY ACTS, 1883 AND 1890.

ADJUDICATIONS.

Bone, Francis, Middlesborough, dentist.

Green, Benjamin, and **Green, Samuel** (trading as Benjamin Green), Dudley and West Bromwich, aerated-water manufacturers.

Hill, William Henry (trading as H. Tuek), Cardiff, temperance-drink and cordial manufacturer.

Redhead, Elizabeth Ann, and **Mason, Dorothy** (trading in co-partnership as H. I. Mason & Co.), South Shields, chemists and druggists.

Robinson, James, Ulverston, surgeon.

New Companies and Company News.

JOSEPH CROSFIELD & SONS (LIMITED).—Capital 300,000*l.*, in 10*l.* shares (15,000 preference). Objects: To acquire and take over as a going concern the business now carried on under the style of J. Crosfield & Sons, to enter into an agreement with J. Crosfield and J. J. Crosfield to carry on the business of soapmakers, candle-makers, manufacturers of colours, dyes, and paints of all kinds, chemists, druggists, &c. The first directors (to number not less than three, nor more than seven) are: J. Crosfield, A. H. Crosfield, J. J. Crosfield, and K. H. Markel. Qualification 1,000*l.*; remuneration as the company may decide. Registered by Mellor, Smith & May, 1 Moorgate Place, E.C. Registered office, Bank Quay Soap-works, Warrington.

WALTON DRUG COMPANY (LIMITED).—Capital 500*l.*, in 1*l.* shares. Objects: To carry on, wholesale or retail, the business of chemist and druggist, together with all or any trades or business usually carried on in connection therewith,

to prepare, manufacture, import, produce, buy, sell, and deal in all kinds of salts, acids, alkalis, drugs, medicines, &c. The subscribers (who take one share each) are:—Dr. J. Oldershaw, Grove Road, Wallasey, Cheshire; J. Ramford, Stank Lane, Whiston, farmer; E. Gardner, 14 Yew Tree Road, Walton, manufacturer; W. R. Whitfield, 44 Mandeville Street, Walton, clerk; Mrs. A. H. Davey, 46 Hale Road, Walton; A. J. Fewiday, Bank Cottage, Okehampton, goldsmith's assistant; G. Oldershaw, 202 Country Road, Walton. Registered without articles of association by T. T. Hill, 22 Chancery Lane, W.C.

W. B. FORDHAM & SONS (LIMITED).—The directors have declared an interim dividend for the half-year ended June 30 at the rate of 7½ per cent. per annum, free of income-tax.

BOVRIL (LIMITED).—The report for the year ending June 30 states that the net profits amount to 88,120*l.* The directors recommend for the last half-year a dividend at the rate of 20 per cent. per annum, income tax free, making, with the interim dividend paid by the old company on January 31, a total distribution of over 13 per cent. for the year on the increased capital. The balance to be carried forward will be 2,921*l.*

THE MILLBAY SOAP, ALKALI, AND SODA COMPANY (LIMITED).—In the Chancery Division, on Saturday, before Mr. Justice Chitty, Mr. Martelli appeared in support of a petition asking the consent of the Court to the reduction of the capital of the above-named company by writing off 5,000*l.* lost capital, and by returning 5,000*l.* which was in excess of the wants of the company. Learned counsel said that at first the company sustained losses, but it became a very prosperous concern, and it was desired to distribute these accumulated profits among the shareholders. His Lordship sanctioned the reduction.

Trade Notes.

MESSRS. F. NEWBERRY & SONS inform us that the price of the Trommer malt-preparations, for which they are agents, is to be protected. The 2*s.* 6*d.* bottles (cost 18*s.* per dozen) are not to be sold at less than 2*s.*

MR. RICHARD GIBBINS, wholesale druggist, of Derby, referring to the notice printed under Business Changes last week, asks us to make it clear that his partnership with Mr. William Davies and the consequent change in the style of the firm will not commence until August 1.

DRUGGISTS' CORKS.—Mr. Tom Brooks, of Hornsey, has recently been specialising in corks. We have received a few samples from Mr. Brooks, and are able to say that they are well made from nice, compact, and soft bark; and Mr. Brooks is not afraid of giving length in his dispensing-corks, while the vials are slightly over an inch in length. It very often happens that cheapness in price is due to shortness of cork, but Mr. Brooks does not go on that principle.

SALLYCO.—The Sallyco Water Company, of Denmark Road, Hornsey, N., are now placing before the trade a new mineral water to retail at 5*s.* per dozen. It is a sparkling and pleasant-tasted beverage, specially adapted for those afflicted with the many troubles arising from deposits of urates. It is also claimed to be efficacious for various kidney-complaints, dyspepsia, and gout. The company offer the water in bottles, but they are also desirous of getting aerated-water manufacturers to undertake the bottling of sallyco, and those who think of doing that should communicate with the company at the above address.

"HOW OLD IS IT?"—The Missouri Pharmaceutical Association has passed a resolution to the effect that manufacturers of infant-foods, proprietary remedies, &c., be compelled by law to place on their inside label and outside wrapper a sworn statement as to when the preparation was made and how long it will keep in good condition.



"How is business?"
 "There isn't any."

If all interviews were like that my occupation would go. But I put it down as a verity, and as a record in brevity of interviewing. It should be qualified, however, with the facts that my victim was a produce-merchant, and while the interview lasted he was smoking such a delicious cigar that one could not help wondering what his smokes are when there is business. Moreover, he looked jolly enough for two. One cannot help wondering if the complaint "no business" has got to be a kind of fixed belief with business-men. When I talk to my fellow-travellers about their business, a few of them admit that the times are bad; most of them confess that they work to make each journey a trifle better than the last one, and succeed; while the remaining few seem to beat creation at getting orders. These views summed up do not fit in with the opinions of the principals, but the fact of the matter is that the volume of business is as large as ever it was, and the profits are smaller. It was under the influence of such thoughts as these that I hied me eastwards, as far as Artillery Lane, one day recently to make a few casual calls.

MESSRS. W. J. BUSH & Co.

received me with smiles, for was not the heat sweltering outside (therefore, excellent for the beverage-trade), and the firm's spacious offices were as cool as one can expect anything in the artillery line to be. One of the first things that caught my eye when I entered the principals' room was a framed statement regarding the pension-scheme which the firm instituted two or three years ago, and which, Mr. Bush informed me, has given mutual satisfaction. Under the scheme any employé who has been in the continuous service with the firm for twenty-five years may retire with a pension amounting to a quarter of the salary paid; at the end of thirty years the pension is increased to a half; and at the end of forty years to three-quarters of the salary. It speaks well for the relations between employers and employes that Messrs. Bush have about a dozen men with them at the present time who are entitled to the quarter-century pension, while several have retired at the more advanced stages. Mr. Bush informed me that, in the event of any employé dying before taking advantage of the pension-scheme, a liberal payment is made to the widow, this being not less than three months' salary. Turning to business, Mr. Bush admitted frankly that the season is a good one for them; and in spite of W. G. being "a bit off" this season, the "W. G." cricket-drink has gone better, and cricketers all over are beginning to appreciate the fact that it is possible to rival shandy-gaff. Messrs. Bush have also gone with the cycle-boom in providing a bracing and refreshing drink for cyclists—"Cycle Punch," it is called—which is a fruity-flavoured drink with a good deal of tonic properties about it. Of course, it is the essences for these drinks that the firm sell, and I venture to say that there is enough of the summer left for those who have not had them yet to give them a trial. The firm supply showcards and labels for the drinks. Speaking of the herb-distilling season, Mr. Bush informed me that he had sold, a day before, the last drachm of the otto of elder, which they distilled for the first time last year. More of it will be distilled this season, as there is now a demand for the elder-flower water which must be satisfied. This water has, I believe, an exceptionally good flavour, keeps well, and, being fully saturated, stands considerable dilution.

MESSRS. POTTER & CLARKE'S

warehouses, further down Artillery Lane, were my next place of call. Of recent years the firm have been developing

the manufacturing branch of their business, and under the supervision of Mr. Potter, jun., who is "a Square man," the laboratories have been somewhat enlarged and improved, so as to cope with increasing demands for herb-beer extract, fluid extracts, &c. The manufactures in this department are chiefly those of drugs which have been specialised by the Thomsonian and other schools of botanic medication, and include the famous composition-essence, whose virtues are now so generally appreciated. Messrs. Potter and Clarke are giving increased attention to the packing of these medicinal specialities for retail, and one of the latest additions to their stock is a syrup of figs, to retail at 1s. The various packing departments of the warehouses are an interesting spectacle. Women are employed in them exclusively, and the departments are separated. Thus culinary and medicinal herbs are packed in one room, seeds in another, and so on. The packers are paid by the piece, but the forewomen are on a salaried basis. The packing is done most expeditiously and neatly, and I noticed that there was proper inspection and preparation of the herbs by a competent person before they were passed into the packing-rooms. The bird-seed trade has become quite a big thing with the firm; and on the day of my call the whole staff of packers in that department were engaged upon colonial orders, which are for 1 lb. unpriced packets. I may mention that the packing of non-herbal drugs, such as seidlitz-powders, granular preparations, teething-powders, headache-powders, &c., is also well attended to. The little harmless headache-powders are a popular line, efficacious and really harmless, as caffeine is the active ingredient. They are sent out in boxes for counter show, or on gross cards. My walk through the stock-rooms is now a memory of bales and barrels filling several floors, and bins of loose herbs and drugs gathered from all ends of the earth; and it is curious to see such unusual resources associated with the most modern "quick-selling lines." The firm have also a pill making and coating department, from which you can get all sorts of botanic pills, as well as those of the B.P. Here are two formulæ, which will show how botanic pills differ from those of general practice:—

Pil. pro Hamorrhoid (Pile-pill).

	Gr.
Collinsonin.	1
Ext. casca. sagra.	2
Oleo-res. pip. nig.	1
Ext. nuc. vom.	1

Dose: Two at bedtime, or on rising, or two at each of these times.

Headache pi ls.

Sodii sulphit.	2½ g
Ext. aloes Barb.	3 "
Leptandrin	1 "
Caffein.	1 "
Ol. rosmarini	1 "

Dose: One or two pills twice or three times daily, shortly after me

The firm are putting up the pile-pills along with compound hamamelin suppositories in a box to retail at 2s. 6d., which has met with great favour. It is only a few years since Messrs. Potter & Clarke removed to their present premises, and although they have two warehouses elsewhere in London, I would not be surprised if the Artillery-Lane series of houses should prove too small for their business ere long; there is not a square foot of the premises unutilised. Moreover, since my visit young Mr. Potter and Mr. Wren have become partners, and they have both ideas and "go" of their own to make things hum.

THE SPONGE CENTRE

of London is in the region of Houndsditch. One cannot walk up that ancient thoroughfare without being struck with the fact. The fingers of both hands will not cover the number of merchants planted there, and amongst them there is none more respected than the old-established firm of MESSRS. I. & M. COHEN, 53 and 54 Houndsditch, which premises have 66 St. Mary Axe as an annexe. The business was established by the grandfathers of the present principals, Mr. Edgar Cohen and Mr. Laurence Cohen, at the end of last century, so that they have had ample time to become consolidated. The present partners are men in their prime and although Mr. Edgar Cohen, the senior, has had a larg

Share in floating such gigantic enterprises as Harrod's Stores and Crisp's, of Holloway, he does not neglect the Houndsditch business. His partner was my cicerone on the present occasion, however, and while he attended to a customer he asked me to amuse myself with a file of Government orders. These were interesting, and I gathered from them that the firm have held for years contracts with the War Office and the Admiralty, both of which have been recently renewed. The War Office sponges are for use by the horse regiments—in other words, for stable use—and they must be good unbleached Turkey sponge, and not the rejections which generally go to the stables. The Admiralty, on the other hand, use honeycomb sponge—nice solid pieces, unbleached, and of medium size. It says much for the way in which Messrs. Cohen fulfil the contract that I found no complaints on the official orders which are returned to the contractors after orders are executed and checked at the depôts. The firm are well represented in the sponge-fishing districts of the Mediterranean, and are amongst the most important buyers with headquarters in Greece. Mr. Edgar Cohen and Mr. L. Cohen each spent a number of years at the Mediterranean markets, and the King of Greece recognised their enterprise by the bestowal of an order. During a tour through the premises I had a chat with Mr. Cohen regarding the scarcity of sponges, and learnt from him that, although the best quality of Turkey sponges are difficult to get at, and consequently more expensive than they were a decade since,

them?" No sooner said than done; and they were beauties—about 120 pieces to the case, and every one a perfect cup. "But," said Mr. Cohen, "you must not go away with the idea that all our sponges are 45 $\frac{1}{2}$ a case. We pride ourselves in being able to meet the wants of anybody who deals in sponges, and can supply anything from a card of penny sponges up to these bonnie bits of cups." "Do you supply retailers exclusively?" Mr. Cohen smiled, and I must paraphrase his reply. "Bless your innocence! we could not carry this big stock if wholesalers did not buy largely from us; but, large buyer or small buyer, we try to do our best for everyone. Good morning! Glad to see you any time you're passing."

On my way up Houndsditch a gigantic portrait of

"DON JORGE"

caught my eye. It was over the doorway of 58, 59, 60, and 60A Houndsditch, and stepping in "Don Jorge" himself, one of the FRAENKEL BROTHERS, greeted me. These well-known tobacconists' caterers have removed to these much larger premises, and they hope now to do all branches of their business under one roof. The interior of the showroom is so well arranged that I reproduce a picture of it here. The firm have an extensive connection with chemists Don Jorge told me, and they make a feature of showcases adapted for the display of stock. Their own stock of tobaccos, cigars, cigarette, and sundries beggars descrip-



there are actually larger crops of sponge harvested. The increase in price is really due to two causes—viz., more expensive fishing and greater consumption. Within the past twenty years the outlets for sponge have increased enormously. Another interesting fact is that the really best qualities of sponge are sold in this country as they are imported—that is, without further bleaching. On the Mediterranean all sponges undergo a sort of bleaching, but it is very slight, and has practically no effect upon the texture. As far as I could judge, nearly the whole of the stock which the firm holds in Houndsditch is made up of sponge as imported, for they stock the bleached goods at the auxiliary warehouse in Collingwood Street. It is a point for chemists to note that drapers, stores, &c., will buy scarcely anything but bleached sponge, and it may be taken as a rule for guidance that the best sponge has the natural colour. Another point. Sponge in cases is always so compressed and dry, especially honeycombs, that they do not look their value. To wet them is a mistake. The best way of getting them to swell is to lay them upon damp sand, then they get to their natural shape gradually, and without feeling damp, which is the desideratum. I saw a lot under treatment during my call. As we were going upstairs, Mr. Cohen's eye caught a pile of cases, and he remarked to me, "There's a little fortune in that corner." "Oh, what is it?" "These are fine Turkey cups, at 45 $\frac{1}{2}$ a case. Would you like to see

them? Better visit it. There is a good selection of walking-sticks on show, and in the recollection that I have picked up some of my best sticks in country druggists' shops, I mention this line.

EXPORT TRADE.

The drug-trade at home and abroad is sure to have noticed that since the division of the firm of Fletcher, Fletcher & Stevenson, Mr. H. E. Stevenson has as principal of H. E. Stevenson & Co., 130 Southwark Street, S.E., been pushing the export trade most consistently. The fact is, Mr. Stevenson is a believer in export trade, and knows it thoroughly. It is sixteen years since he introduced "c.i.f." prices for drugs and chemicals, and this system has become so well appreciated by colonial and foreign buyers, that now it is almost universal in the drug-trade. My call upon Mr. Stevenson was practically to ask, "How are you getting on?" but I found him so busy, since it was "mail day," that I left that question unasked, especially as there were orders from Portugal, the West Indies, and Australia lying on his desk. I may describe the business as a general wholesale and manufacturing one with developments in special departments. The firm have the whole of the upper floor of their premises fitted up as a compact steam laboratory, on the floor below it is a packing department, and the rest, down to the basement, are used for storage, packing, and all other operations

connected with the business. While I was talking to Mr. Stevenson, his laboratory man brought in the results of an operation which he had just completed. It was neatly drawn up on a printed form, which is so handy that I asked Mr. Stevenson's permission to reproduce it here on a reduced scale. The original is $9\frac{1}{2}$ inches long by 6 inches wide.

Date _____ Made by _____

Average sp. gr. :— Strength :—

FORMULA.

Menstruum	Totals	Laboratory Examination
Monday ..		
Tuesday ..		
Wednesday ..		
Thursday ..		
Friday ..		
Saturday ..		
Total menstruum used		

YIELD.

Sp. gr. :—

Signed _____

Date _____

Mr. Stevenson remarked that it was highly important that he should know the destination of all the spirit that entered the laboratory, as he buys it at somewhere between 18s. and 20s. per gallon, and most of it is exported at something like 8d. per lb.; so any serious leakage means a considerable loss in the drawback. The tincture department of the business is, by the way, growing very rapidly since Mr. Stevenson commenced the manufacture of tinctures, liquid extracts, &c., on the premises; and as to miscible extracts of coca, cinchona, and kola the firm have for some years supplied them to manufacturers of some of the most widely-advertised wines. I observed also that they are entrusted with the execution of confidential orders for the compounding of private formulæ, and one such order sent by a well-known Australian house was in the last stage of finishing, ready packed for retail. This latter part of the process was done in tasteful style, the printing on the labels of the various firms being very neat. Trade in certain classes of chemicals has for long received Mr. Stevenson's special attention. I may mention, as an example, sulphuric acid, which he exports to colonial and Indian manufacturers of aerated waters in special lead-lined cases, containing 200 lbs. of the acid, with a saving of nearly 50 per cent. in the gross weight of the packages. The result is such a saving to the buyer that I was not astonished to hear that this style of packing is growing in favour. A 5-ton order was just being executed while I was in the warehouse. I may add that the acid is a genuine brimstone vitriol—that is to say, it is not made from pyriter, but from Sicilian sulphur, and the consequence is that it is absolutely free from arsenic, while special care is taken to ensure a complete absence of nitrous compounds; and the result is an acid specially adapted for the manufacture of aerated waters. It is now well known that the presence of nitrous compounds has a very deleterious influence upon the flavour and pungency of certain beverages. Amongst other chemicals which the firm are specialising are ether for ice-making, zinc oxide made direct from the metal by burning, carbolic acid, carbolic disinfecting-powder, anhydrous ammonia, and other heavy lines, all

of which they offer to large buyers at manufacturers' terms. In connection with zinc oxide Mr. Stevenson told me a curious tale about some keen competition which he has recently had to grapple with. He wondered why it was that whenever he sent a quotation to any firm for zinc oxide an unknown "firm," who had not been asked for a quotation, sent in one at the same time. The repetition of this strange incident and inability of the rivals to execute an order led to the discovery of the fact that a youth formerly employed by Messrs. H. E. Stevenson & Co. had set up in business for himself, and someone remaining in the firm's employment gave him hints as to who were asking for quotations. The case may be a warning to others, and it is a good example of the necessity of those catering for export business being able to cope with the largest possible demand and to execute the orders with despatch. I have seldom spoken to anyone so fully alive to this as Mr. Stevenson, and the resources at his disposal seem to be the best. He is interested just now, I understand, in a new process for the production of potassium cyanide, and showed me a cable stating that it had turned out "completely successful." He exports this cyanide in zinc-lined cases, and I believe that buyers in mining centres will find it to their advantage to ask him for particulars regarding the 92-100-per-cent. product.

IN THE WEST.

The West-end of London is not associated in the provincial mind with the centre of London commerce. It is there one goes to see the latest things in hats, ties, or jewellery, but, except in the case of a few trades, it cannot be regarded as a wholesale centre. Nevertheless, we could easily enumerate about a dozen firms connected with the drug-trade who have their wholesale depôts between the Marble Arch and the British Museum, and amongst them Messrs. J. Sanger & Sons, 2 Winsley Street, Oxford Street, well represent the druggist's sundries and proprietary-medicine section of the business. Their premises are of recent construction and have only been occupied by the firm three years, they having built the house expressly for their requirements, leaving a good margin for development in the sundries department. Mr. Henry Sanger,

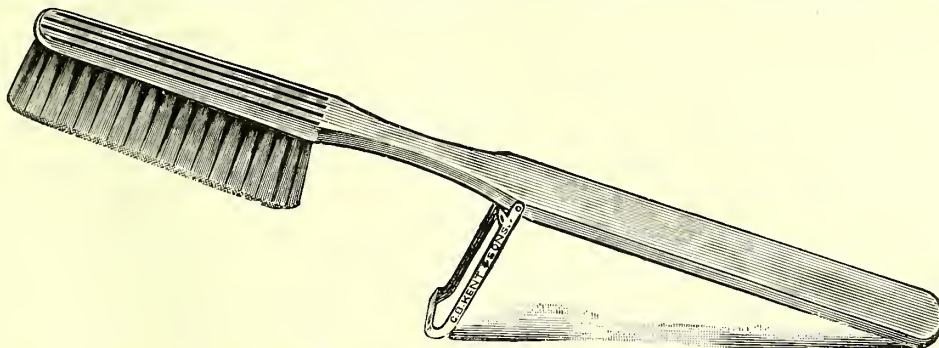


MR. HENRY SANGER.

one of the junior partners of the firm, was good enough to take me over these premises the other day, after I had spent half-an-hour with him in the excellent showroom. I may briefly sketch the capacity of the premises by stating that the proprietary-medicine department is in the centre of the building, the order-counters being on the ground floor, and the whole space above is open up to the roof, thus including three floors and providing an extremely well-lighted hall for working in. The stock for this department is arranged in a series of bays radiating from the counters and readily accessible to the assistants. Ascending to the first floor, one passes on the left the counting-house, and walking round the galleries a very complete stock of glass-ware of all kinds, sundries, feeding-bottles, sponges (in a well-lighted room), and other goods are brought into view, the whole being admirably arranged and as spick and span as a working-warehouse can be. Mr. Sanger also took me into several of the workrooms,

for the firm now employ a large number of hands in fixing together feeding-bottles and soothers, and in packing perfumes and other counter and toilet specialities. It was somewhat of a surprise to one who was suffering from the torrid heat of the London streets to find girls coolly making up boxes of perfumes for Christmas trade, but

call the "Tripod" toothbrush. The illustration explains the thing well. In the middle of the brush a white metal rest is fixed, which moves as if it were hinged, so that when it is brought out the hinge keeps the brush-end off the wash-stand, thus allowing it to drain. In this way it is better ventilated than brushes can be in the modern toilet-vase or



Mr. Sanger told me that they had been busy in this department since February last. I do not think it would be quite fair to the firm for me to indicate particularly the novelties which they are then to produce; but I may say that there are many new designs in cut-glass bottles, while the cases struck me as being distinctly novel. Perhaps I may mention a few of the lines which I saw in the showroom. First, there was a very nice series of twopenny laverders, packed on card in neat green-glass vials; 6d perfumes in sprinkler-stoppered bottles—good value both as to quantity and quality of perfume, and certainly tasteful in get-up. Another line is a nice series of smelling-bottles, including some with a neck of burnished gilt. As to soothers, well, that is a department which Messrs. Sanger appear to have mastered thoroughly. There is no introduction of recent years which is so fruitful of thought as the soother. The number produced is appalling, and represents many a pitiful uncried cry. The wonder to me is what *our* mothers did with us when we cried. Some one whispers to me that we were spanked. If so, the art of spanking will soon be lost, with such attractive tit-bits as these soothers. That reminds me of a pharmaceutical friend who, before the days of soothers, sold stick-liquorice for the youngsters. It was tied round their necks with a string, and ere long became a thing like an Indian scalp.

I was amused to hear that a penny soother consisting of four parts is quite an international affair. The teat and card are English, the ring is French, and the union German. Mr. Sanger somewhat apologetically referred to the fact that it is impossible to get certain articles of English manufacture, but I am one of those persons who think if we were to use everything exclusively British, we should soon see an end of this country. International commerce must continue, for the simple reason that there is not enough money in the world to do business if barter, in its modern form, is discontinued. But this is leaving the subject of my visit. It is scarcely possible to mention even a tithe of the articles deserving attention which I saw. For example, in spray-producers I noticed some of the cheapest and yet good-looking lines I have ever seen. In the rubber-goods department were some excellent enemas, and all round the wall-cases there is evidence that the firm cater well for druggists in sundries. I was particularly struck with the fact that they keep a stock of photographic goods, silver-plated ware, handbags and portmanteaus, and many other odd things which a chemist finds he wants, either for his own use or to give as a Christmas or wedding present, and there he can get them at trade-price. It may not be generally known that each department of Sanger's business is managed by a partner on the good old-fashioned principle, "When you want a thing well done do it yourself." There are seven partners—Mr. Charles Sanger, Mr. E. Percy Sanger, Messrs. Henry and Ernest Sanger (sons of the first named), Mr. David Smith, Mr. Arthur Pulford, and Mr. Stanley Potter; and they all work well together.

FOR THE HOLIDAYS.

At Messrs. G. B. KENT & SON'S showroom in Great Marlborough Street, W., I saw a really smart idea, which they

box. The firm are also introducing a cheap toothbrush-guard made of zylonite, which just covers the brush part and protects it, and anything kept near it. It is called the "Tricho," and will retail at 2d. or 3d. Mr. Kent informed me that business has been very good lately. The firm have just got possession of the new extension of their factory, and I understand that a photograph of it is to be reproduced in their advertisement this week. The annexe at the back is solely devoted to toothbrushes. It struck me while I was in the showroom that the exhibits just now are exceptionally pretty, and any chemist in town would be well repaid by a call.

Wills of Deceased Chemists.

The will of Mr. George Cooper, retired chemist and druggist, who died at his residence at Branscombe on February 14, 1896, has been proved by Mrs. Cora Cooper, the widow and sole executrix of the testator, whose personalty is sworn at 3,432l. 9s. 7d. gross, and 1,837l. 1s. 9d. net.

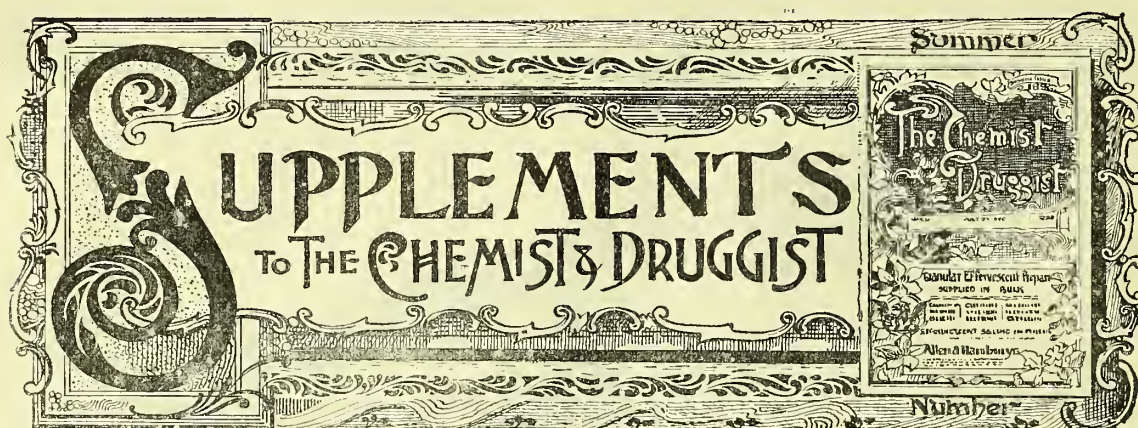
The will of Mr. Chas. E. Ogden, 24 Highbury Crescent, chemist and druggist, who died on March 15, has been proved by Mrs. Elizabeth Ogden, the widow, and Mr. Wm. Thos. Ogden, the brother, by whom the personalty is sworn at 18,192l. 10s. 1d. gross, and 17,907l. 7s. 1d. net.

The will of Mr. John Barton, chemist and druggist, High Street, Barnet, who died at his residence, 1 Stratford Villas, Barnet, on September 2, 1895, has been proved in London by Mrs. Ellen Barton, the widow and sole executrix of the testator, whose personal estate is sworn at 322l. 13s. 2d.

The will and codicil of Mr. Benjamin Griffiths, retired chemist and druggist, of 121 Victoria Avenue, Maindee, Newport, who died on June 7, have been proved by Mr. Alfred James, a great-nephew, and Mrs. Jemima E. Davies, a sister of the testator, whose personalty amounts to 6,078l. 17s. gross, and 6,053l. 15s. 6d. net.

Mr. James Hart, pharmaceutical chemist, 131 Embden Street, Hulme, Manchester, having died on April 30, 1896, intestate, letters of administration to his estate have been granted to his widow, Mrs. Mary Hart, her sureties being Mr. J. B. Williams, chemist, and Mr. James Ellis, engineer, both of Chorlton-on-Medlock. The value of the deceased's personalty is sworn at 1,056l. 8s. 1d. gross, and 468l. 19s. 1d. net.

INCREASE OF VENEREAL-DISEASE.—According to a return by the Sanitary Commissioner with the Government of India on the prevalence of venereal-disease among the British troops in India, it appears that the number of admissions to hospital during last year was 511 per 1,000, as compared with 166 in the previous year. This represented 63 per cent. of the whole garrison—70,000 strong—and over 3,000 men daily were declared unfit for service from this cause alone. Measures taken to check the spread of the disease have been completely unsuccessful.



OUR advertisers have caught the spirit of this issue. Today we are able to insert with our ordinary advertisement sheets a number of the brightest and best circulars and price-lists which have ever been inserted in THE CHEMIST AND DRUGGIST. These are supplements of the greatest value to all in the trade, as they bring before buyers in the most striking manner the manufactures and specialities of the various firms; while the price-lists are of decided value. This Summer Issue is somewhat ahead of the last one in the matter of supplements, both in regard to number and artistic production. We need scarcely ask buyers to examine them carefully, for we have been assured by many at home and abroad that these annual issues are eagerly looked forward to. The spectacle of Indian drug-merchants poring over the pages has often been witnessed by Anglo-Indian chemists, and that, we know, will happen in many other climes than India before the year is much older. We need scarcely explain that the object of advertisements is to create business, and the purpose of reading them is to give orders. There are many new and profitable things advertised in this issue, which it will be well for smart business men to sample, and according to custom we mention the contents of the various supplements. We shall have no other opportunity this year for inserting circulars and price-lists in THE CHEMIST AND DRUGGIST, but on January 30, 1897, we shall publish a Winter Issue, and the Publisher will be glad to hear from any firm who think of getting up a circular for that occasion.

The folios appended to the subjoined paragraphs are those of the black-and-white advertisement pages between which the insets fall.

Baiss Brothers & Co., of London and Manchester, call attention to a number of their special preparations, such as liquors, compound mixtures, syrups, wines, elixirs, and liquid extracts, which are prescribed by medical men. Brief notes are given of the purposes to which these are put, and it will be observed that cod-liver oil emulsion in bulk, and codeine and glycerine jelly, as recommended by Dr. Mahomed, of Bournemouth, are included in the list. (Between pp. 123-129)

Bayley & Co. have been identified with Ye Olde Civet Cat since 1739, and there is not an English-speaking druggist in the world who has not sold their ess. bouquet. It is that celebrated perfume and their equally celebrated spermaceti soap (the forerunner of superfatted soaps) which are the subject of the first page of their pretty circular. The bunch of cornflowers and bluebells is an artistic touch. The second page of the circular contains a list of perfumes, soaps, and toilet preparations manufac-

tured by the firm; and it will be noticed that it was George IV.'s use of the ess. bouquet which helped to make it such a favorite. This popularity brought with it imitations, but Bayley's Essence Bouquet has retained its celebrity, just as it retains the composition, which it had over a century ago. (Between pp. 64-65.)

Bleasdale (Limited), of York, insert a 16 page illustrated price-list of their pharmaceutical and special manufactures. The cover, with the views of celebrated York edifices, is good. The value offered in the twelve pages of chemists' "own" specialities is also good, and the way that each article is illustrated by a figure of the package or bottle should assist buyers materially in making up their orders. We may say that we have had the opportunity of seeing many of these articles manufactured, and also of examining the finished products, and we can repeat our testimony to the value which the firm offer. **Bleasdale (Limited)** are noted for several articles, especially amongst them the "Spider" fly-papers, granular effervescent preparations, coated pills, and galenic preparations of violets. As to the last-named we may explain that York stands in the violet-garden of England, and in spite of its white-rose fame, in these latter days violets threaten to become its trade-mark. (Inserted loose.)

Blondeau et Cie., the originators of Vinolia soap, toilet specialities and perfumery, insert their price-list, which contains portraits of one-and-twenty representatives who carry the vinolia banner at home and abroad. The list is elegantly printed, contains all the retail and wholesale prices and many choice illustrations, and is sure to be useful to the trade. We have left the front of the cover for this last sentence, but although we are writing near to the source of the Telegraphese fountain, we do not feel sufficiently inspired to describe Aurora's advent adequately. (Inserted loose.)

A. J. Browning, of Great Grimsby, gives us a price-list which should bring him good business. Mr. Browning does all sorts of dental mechanical-work for dentists and chemists, and it will be seen from his quotations how profitable a business this is. There are, of course, many in the drug-trade who are skilled dentists, and pharmacy has given to dentistry some of its best practitioners; but there are also many who would like to practise and do not know how. Mr. Browning offers to give such instruction by post, or in his own laboratories at Grimsby. It is a good advertisement, and deserves quick response. (Between pp. 64-65.)

Brunner, Mond & Co. (Limited), Northwich, give instructions for using bicarbonate of soda in making aerated

waters. The advantages of soda over chalk are appreciated by a large number of aerated-water manufacturers throughout the world, and the saving in cleanliness alone is much in its favour, while a further saving is effected in sulphuric acid, as 5 parts of acid yield with soda three times as much CO_2 as 4 parts of acid yield when chalk is the source of the gas. (Between pp. 32-33.)

Jas. Burrough, of Chelsea, has on the present occasion added an important article to his circular—viz., coca wine. This he offers in bulk for chemists own bottling, also in bottles and half-bottles. Mr. Burrough's leading cards remain, however, the same—viz., S.V.R. and S.V.M.—but he can supply everything in the spirits and wine departments. (Between pp. 160-161.)

C.A.M.W.A.L. watches in actuality would not be a bad advertisement for the Chemists' Aerated and Mineral-waters Company (Limited). Perhaps they have thought of it, for they put one on the front page of their circular. All chemists ought to know by this time that "Camwal" is a chemists' co-operative concern which was formed to supply chemists only with pure aerated waters, especially in syphons, at as low a rate as is compatible with purity. In the eighteen years of its existence its membership has increased thirty-fold, and the dividend is threatening to beat that of Brunner, Mond & Co. We say nothing about the advantages of the company, because one of the members does that on the third page. Two good interiors of the Chemists' Club are on the fourth page. (Between pp. 32-33.)

M. W. Carmichael, 158 New Bond Street, W., gives figures of the delightful perfume-amulets which we recently had the opportunity of reporting upon favourably. (Between pp. 32-33.)

Thomas Christy & Co.'s list is an excellent example of business development. Fifteen years ago Mr. Thomas Christy was famed all over the world as being the man to go to for new remedies of any kind, and that he retains that reputation is evident from his recent discovery of the original kino which he got somewhere about the Zambesi. His list speaks of none of these things, but of Morstadt cachets and apparatus, Stearn's preparations and Dike's pepsin, the litmus pencil, the Haarlem waters, and N. W. K. adeps lane and alapurin. Prices are given in each case—a valuable feature in *C. & D.* advertising—and there is a bordered space on page 3 which it would be well to note. (Between pp. 64-65.)

James R. Crompton & Brothers, of the Elton Paper-mills, supply us with an inset which may give many in the drug-trade an idea in advertising. This is a sheet upon which they give illustrations in colours of their various toilet rolls and papers in packets, and upon this are fixed three samples of the paper—"Mikado," "Perfection," and "Universal"—so that retailers may judge at once of the textures and qualities of the papers. We hear that there has been a demand for the "Mikado" paper. The following are agents for this superior article:—Barclay & Sons, London; F. Newbery & Sons, London; S. Maw, Son & Thompson, London; Wm. Edwards & Son, London; Evans, Sons & Co., Liverpool; Jas. Woolley, Sons & Co. (Limited), Manchester; and Glasgow Apothecaries' Company, Glasgow. (Between pp. 32-33.)

Geo. Curling, Wyman & Co., of Bunhill Row, E.C., continue the custom of their predecessors, Geo. Curling & Co., in sending to our foreign and colonial subscribers only a price-list of their manufactures, and containing also a statement regarding the reconstruction of the firm through the amalgamation of Geo. Curling & Co., John Wyman, and Wyman & Westwood. To these particulars are added a page about Rosbach water, for which the firm are

agents as regards India, Ceylon, South Africa, and South America. (Between pp. 160-161.)

J. Defries & Sons (Limited), 147 Houndsditch, E.C., illustrate several makes of the Pasteur-Chamberland filter, and describe the points in which it is superior to other water-filters, especially in regard to the sterilisation of water. (Between pp. 160-161.)

M. L. Fonbeney, manufacturer of filtering-paper, Couze St. Front, inserted, it may be remembered, a circular in one of our special issues regarding the new filtering-paper which he manufactures, but through an accident samples of the paper were not included. Mr. Fonbeney now supplies the omission, and it will be observed that the "gutters" formed in the paper distinctly facilitate the process of filtration. The strength of the paper is also exceptional. (Between pp. 128-129.)

Friedrich Fuestell's Successors (Hamburg), for whom Messrs. G. Kahler & Co., 29 Fenchurch Street, E.C., are agents for Great and Greater Britain, are distillers of essential oils and manufacturers of essences, tinctures, &c. The price-list which they insert refers chiefly to essential oils, but there is included a short list of synthetic perfumes and perfume materials. The quotations appear to us to be "fine." (Between pp. 128-129.)

Wm. Gardner & Sons, of Gloucester, illustrate some of the more useful sizes of sifters and mixers manufactured by them, and give the prices. Were it not for the fact that we have an occasional inquiry for machines for mixing medicinal and other powders, we would not say now that these are for that purpose. Messrs. Gardner know their business well, and we have told how they make the machines. The description of the features of the machines is well worth reading. (Between pp. 64-65.)

Goodall, Backhouse & Co.'s list of packed goods is another sign of the times. The famous Leeds firm were about the first to venture into this field, and the quotations which they give of a large variety of household-medicines and counter-specialities will show busy men, who find their time fully taken up in selling, the advantages of buying goods ready packed in this manner. The list is in many ways instructive, and will doubtless be referred to often during the next six months. (Between pp. 64-65.)

Wm. Gray & Co., of Hull, save us, we often think, a great deal of inquiry, for their price-lists of paints, varnishes, oils, colours, and crysalties generally must convince many a one how much better it is to buy such goods as these from the large manufacturer. It is really impracticable for the druggist to undertake the manufacture of oak varnishes and the like in his shop premises, moreover it is dangerous; and as for paints, machinery has thrown many a stone and muller into the street. It was time, for a more soul-depressing contrivance we never worked. (Between pp. 160-161.)

Albert Hildesheimer, the art printer of New Zealand Avenue, E.C., supplies us with a charming girl in yellow as a sample of the painting which he produces for artistic advertising. It is equal to anything in colour-printing which has ever been inserted in this journal, and we doubt not that this "yaller girl's" invitation for correspondence will be quickly responded to. Mr. Hildesheimer's almanacs are well known to the retail trade. He has intentionally left the back of the picture blank, as he can give by post, any who really mean business, good tips in advertising. (Between pp. 32-33.)

Idris & Co. (Limited), of London and Southampton, entrust us with the distribution of a sample counter-bill which they are willing to supply to chemists. The picture of the supper-party is printed by the three-colour half-tone process, and it recalls to us a Royal Academy picture. The Idris Royal table-waters, although origin-

ally known to Londoners only, have now a wide reputation, and the resources of the company are unequalled in magnitude. (Between pp. 32-33.)

H. & T. Kirby & Co. (Limited), 14 Newman Street, W., the manufacturers of coated pills of various kinds, pastilles, lozenges, &c., insert a formulary and price-list of their products, which we have found interesting reading. The list is effectively produced, and deals with a large number of really popular lines and profitable counter-specialities. Export buyers will note many points in the list which are specially addressed to them. (Between pp. 32-33.)

W. Kúblenthal, 36 Basinghall Street, E.C., has been appointed the British agent for the Rio Chemical Company, Sultan Drug Company, and Peacock Chemical Company, of St. Louis, and for the Od Chem. Company, of New York, U.S.A. In an artistic circular he describes the medicinal specialities of these companies, which have a considerable reputation in this country, and which Mr. Kúblenthal is making it his business to extend. (Between pp. 128-129.)

Leath & Ross, 9 Vere Street, W., whose new premises are the subject of a note elsewhere in this issue, again insert their well-known orange circular illustrating several of the homeopathic counter showcases which they supply to their agents. As the pioneers in this "profitable extra," the firm have kept pace with competitive prices as far as the integrity of the potencies will allow, for they consistently adhere to the official standards in compounding their medicines. This is the surest guarantee of homeopathic efficacy. (Between pp. 160-161.)

T. Howard Lloyd & Co., wholesale and export druggists and manufacturing chemists, Leicester, again submit to our subscribers and readers an elegantly-produced list in colours devoted to their manufactures. The firm, during the short period of their existence, have succeeded in making a good connection, as their principal had previously a reputation, for coated pills, and the larger part of the present circular is devoted to coated pills, colloid capsules horse and dog balls, and compressed tablets. On the fourth page of the circular is a reproduction, in colours, of a bottle of the well-known compressed flowers, which are sweet tablets impregnated with various fine odours. To these the firm have now added a line of compressed medicated lozenges, which they call trochettes. (Between pp. 128-129.)

S. Maw, Son & Thompson, the well-known Aldersgate Street firm of druggists' sundriesmen, illustrate the miniature ambulance-case which was recently described in THE CHEMIST AND DRUGGIST. For cyclists and tourists there is no more compact case than this, and during the season—indeed, at all times—it should form a profitable retail article for the trade. The firm also describe and illustrate several of their best clinical thermometers for family use, and the printing of the circular in two colours of ink permits them to show one thermometer which enables the most dull person to see whether the temperature is at fever-heat or not. (Between pp. 64-65.)

May, Roberts & Co. send out another of their travellers in this issue. He is one that does not brag, but, like most of his kind, he is trim and well groomed. A unique feature about him is that he does not pocket his expenses, but gives them to his customers, and the more they buy from him the bigger share of the expenses he gives them. He thrives on the process, strange to say, for he gets stouter every six months' journey. To drop the metaphor, it is their half-yearly price-list of druggists' sundries which Messrs. May, Roberts & Co. insert. It is a big budget in that and other departments of the druggists' retail, and is inserted loose for filing.

The Maypole Soap Syndicate, 93 High Holborn, W.C., want agents all the world over for this distinctly novel requisite for household dyeing. We refer elsewhere to this speciality, and here we would compliment the company upon the handsome manner in which they bring the Maypole soap for the first time before the drug trade. The fourth page of the inset constitutes an order-form. We observe that it is stated, "orders for less than one dozen of any colour cannot be accepted." This may preclude many chemists in a small way of business from ordering; but we would point out here, as we have done on many occasions, that the surest way to create a big demand for any article is to show a big supply. (Between pp. 32-33.)

Newball & Mason, of Nottingham, send from their printing-press another striking circular respecting Mason's original extract of herbs for herb-beer and wine-essences. The Chicago Exhibition has endorsed for these manufactures the opinion which the trade has expressed since their introduction by awarding the makers their medal and diploma. Messrs. Newball & Mason, as manufacturing chemists and botanic druggists, offer a large series of preparations, such as composition-essence, coffee-essence, foamine, and soluble and other essences for the manufacture of aerated waters. (Between pp. 32-33.)

A. & F. Pears (Limited) quote in their circular, which is, as usual, a handsome production in colours and gold, their terms for the supply of their famous soap, and they offer to retailers a liberal supply of advertising matter, much of which is of a highly-decorated character, and is used in all parts of the world by pharmacists. We have an example of that in the present issue from South Australia. (Between pp. 32-33.)

Andreas Saxlehner, Budapest, the proprietor of the Hungary János water, which has enjoyed a quarter of a century's reputation in this country, prints some recent medical testimony to the value of this water, and gives a reduced facsimile of the bottle, with quotations for ordinary wholesale lots. (Between pp. 32-33.)

The Sharp Brothers Soap and Perfumery Company (Limited) insert a price-list of toilet-soaps, perfumery, and toilet goods. Amongst this company's specialities are Bentley's old brown Windsor soap, which is actually used in Windsor Castle, and, indeed, wherever her Majesty travels. White rose and cucumber, appropriately named the "Queen of Soaps," and to these the company have recently added several new lines, which are referred to in the list. "Pansalia" is one of these, this soap being one of the series of preparations consisting of perfumery, dentifrices, shaving-creams, toilet-powders, sachets, and hair-washes, which we mentioned some time ago. This list will repay a careful perusal. (Between pp. 64-65.)

H. Silverlock, 92 Blackfriars Road, S.E., inserts a special price-list of labels and other examples of chemists' printing and stationery. There are included in this a number of striking illustrations for going with advertisements for counter specialities, and we understand that the firm will furnish special designs, or supply ideas for designs to any chemist who wishes something different from the examples given. (Between pp. 32-33.)

Spottiswoode & Co., of New Street Square, E.C., insert a typically correct example of printing from their world-famed press. Messrs. Spottiswoode have printed several of the insets in this number. (Between pp. 32-33.)

Spratt's Patent (Limited), of Bermondsey, branch out in a new line in this issue by giving us a handsomely-coloured circular showing on the front page a box of their dog-soap and on the back a portrait of "Champion Cheeky," one of the best black-and-tan toy terriers in existence. Such illustrations as these are decidedly effective in calling

attention to the leading lines of the firm's products. The inside of the circular is devoted to a practical complete price-list of medicines and foods for dogs, specialities for poultry and game, and medicines for the same, as well as specialities for caged birds, rabbits, and pigeons, &c. It is a matter of great convenience to chemists who do business in these articles to be able to obtain everything from one house, and that is a feature of this company's trading. (Between pp. 64-65.)

H. E. Stevenson & Co, 130 Southwark Street, S.E., insert a price-list of a number of products which they are exceptionally well qualified to supply. These consist of various chemical products and galenical preparations. Among the latter are Stevenson's copaiba liquors, about which our opinion is printed; coca-tonic wine, and old English violets. Our Town Traveller has been inspecting their establishment, and it will be useful to buyers to refer to his remarks. (Between pp. 32-33.)

Stevenson & Howell, 95A Southwark Street, S.E., reproduce a drawing of Mr. A. Fisher in the style of that delightful school of which Walter Crane and Kate Greenaway are such excellent exponents. The firm are leaders in the supply of essential oils, soluble essences, and colours for aerated beverages, cordials, &c. The circular also contains an excellent reproduction of a photograph of a bunch of lemons, which is as good a simile as we have seen of the purity of that impure article. (Between pp. 32-33.)

The Surgical Appliances Company (Limited), of Accrington, are the maker of two "Willardbell" specialities; one is a suspensory bandage, the front of which is made of a plate of aluminium. This is quite flexible, remains cool, and does not corrode. It seems to us a good idea. The "Willardbell" truss is also made by the company, and its style and method of adjustment are illustrated in the circular. The company have a space of their inset ticked off as a postcard, so that anyone who wishes for a sample of the truss will get it on sale or return by simply posting the card. (Between pp. 64-65.)

Tomlinson & Hayward, of Lincoln, have entrusted us with the distribution of a sample of the new handtill for their "Eureka" weed-killer. A parcel of these can be obtained on request. On the back of the inset are printed particulars of retail prices of various agricultural and veterinary preparations made by this firm. (Between pp. 32-33.)

James Townsend, of Exeter, who has recently started a branch office at 2 Stonecutter Street, E.C., has printed a number of chemists' stock and speciality labels on page 1 of his circular, and particulars of 1897 almanacs, "Pine-tree" toilet-paper, and various handbills on the other. For the convenience of London chemists, we may state that they can see samples of any of these goods in the London office, where we have experienced courteous attention at the hands of the manager. (Between pp. 32-33.)

H. P. Truefitt (Limited), of Old Bond Street, W., insert their price-list of hair, dental, and toilet specialities, to which is attached a list of the London and foreign agents. (Between pp. 64-65.)

Wm. R. Warner & Co's "world-famed pharmaceutical products" are the subject of a formulary and price-list. This is prefaced by an address to the trade by Messrs. F. Newbery & Sons, the Philadelphia firm's agents, who state that the appreciation of the Warner manufactures is continually increasing in this country. The price-list is a convenient and useful one, and is inserted loose so that our readers may take it out and hang it up at their desks for reference. Sugar-coated pills, grannles, galenical and effervescent preparations, and compressed lentiforms are the principal items in the catalogue. (Inserted loose.)

Werner, Pfeiderer & Perkins (Limited), whose show-rooms are at 117 Queen Victoria Street, E.C., and the works in Regent Square, W.C., again exhibit to the drug-trade several examples of their well known kneading and mixing machines. These machines are almost universally used for making pill and horse-ball masses, but the illustrations also include machines that are suitable for making tooth-pastes, ointments, emulsifications, &c.; and on the back page of the circular there is a complete list of articles which can economically be manipulated by means of the machines. The firm are also manufacturers of pill-making machinery and tincture presses. (Between pp. 160-161.)

Marriage.

SHEPHEARD-WYCHERLEY.—On July 16, at Whitechurch, Mr. W. F. J. Shephard, son of Mr. Thomas Shephard, chemist and druggist, Bridge Street Row, Chester, to Miss Lucy Wycherley, of Whitechurch.

Deaths.

DAVIES.—A cable from Bombay announces the death there of Mr. W. H. Davies, the senior representative of A. J. White (Limited), of Seigel's syrup. Last year Mr. Davies's colleague, who went out with him to open their firm's Indian office, died.

KEKULE.—The death, at Bonn on July 13, is reported of Professor Friedrich August Kekule, the originator of the benzene ring. He was born in 1829, and was for a time assistant to Bunsen, and afterwards a demonstrator in chemistry at the St. Bartholomew's Hospital medical school. In 1858 he was elected professor at Ghent, but seven years later he accepted a similar post at the University of Bonn. His researches in organic chemistry which lead up to the formulation of the benzene ring were continued with much success, and he had been honoured by chemists of all countries. A few years ago, when the semi-jubilee "discovery" of the benzene ring was celebrated, he received many tokens of appreciation, including an address from the Chemical Society of London.

LEES.—On July 16, at Stalybridge, Mr. James Lees, chemist and druggist, Market Street. Mr. Lees had carried on business in the town for many years. He was said to be the first tradesman in the town to use gas, and at one time manufactured this illuminant prior to the establishment of the gasworks.

RUPPERT.—It is reported from the United States that Madame Ruppert, whose legal contests with the Pharmaceutical Societies of Great Britain and Ireland will be remembered, has lately died in the small Missouri town where she was born. Her maiden name was Amy Shelton, and in her early youth she made the acquaintance in St. Louis of an old lady who had long treasured the formula of "a secret facial wash" in which she had great faith. She persuaded Miss Shelton to undertake the manufacture and sale of the preparation, and so well did the girl manage the enterprise that in ten years she made a handsome fortune. The Pharmacy Act prosecutions here caused her to give up her business, after which she leased a theatre in London, but as an actress failed to win the favour of the public. She lost a large amount of money in this enterprise, and her health broke down. She fell into a consumption, and died at the age of 32.

SHEPHERD.—The death is reported, on June 21, from heat-apoplexy, of Mr. R. Shepherd, chemist, Karachi. Mr. Shepherd had only been two years in business at Karachi, where he had previously been with Messrs. Speechly & Co. The temperature on the Indian West Coast, just before the breaking of the rains, was among the highest ever known—112° night and day.

NOVELTIES

THERE are not many new things connected with the trade to describe in this issue, but we have before us a number of exceptionally good preparations or products which retailers would do well to look into. From

PARKE, DAVIS & CO.,

whose London office is at 21 North Audley Street, W., we have received taka-diastase in a new form—viz., in compressed tablets, each of which contain $2\frac{1}{2}$ gr. of this diastase. This product we have already had the opportunity of reporting upon; but we may recall the fact that it is a remedy for amylaceous dyspepsia, just as extract of malt is, but is much more portable than the extract, and it carries on the conversion of the starch for a much longer period, apparently, than the extract is capable of doing. In the tablet form the diastase should meet with acceptance. We have also received specimens of the firm's aseptic pepsin in powder and scale. This is an exceptionally soluble form of pepsin of the 1 to 3,000 U.S. strength, but it has an advantage over some makes in being free from decomposition-products of the animal tissues from which it is derived. The pepsin is practically non-hygroscopic, and is admirably adapted in the powder form for making pills, cachets, &c., while the scale variety is better suited for making liquid preparations of pepsin. We have tested its proteolytic power, and find that it is substantially as stated by the makers. Mr. Fisk, the European manager, informs us that the lowest grade of pure pepsin which they now produce is 1 to 1,000, and they provide it of more concentrated strengths up to 1 to 15,000—i.e., the pepsin will digest 15,000 times its weight of coagulated albumen when tested in the U.S.P. method. The firm also make pepsin in sugar-coated tablets. When we had occasion some time ago to report upon the firm's laboratories in North Row, we mentioned that they had commenced the manufacture of compressed lozenges, and we now have before us an example of their products in a new lozenge-tablet of red eucalyptus gum. This medicine is a valuable astringent in many throat-disorders, especially in cases of relaxed mucous membrane. It makes a good voice-lozenge, and should be brought under the notice of vocalists and others.

ROSS & CO.,

of 111 New Bond Street, W., are now publishing a pamphlet descriptive of the 1896 photoscope. This instrument is a field glass which can be converted in a minute into a photographic camera and *vice versa*. As a camera certain caps are applied to the instrument. One of these contains a roll of films sufficient for twenty-four exposures. The instrument is so exactly like a field glass in every respect that a single illustration would convey no more than words do, and we recommend those who are interested to get from the firm their pamphlet in regard to it, where there is a long explanation of its use.

THE MAYPOLE SOAP COMPANY.

WE have received from this company, whose offices are in High Holborn, samples of the new household dyes which

they have placed on the market in the form of a soap. The invention is one of the most ingenious which has come under our notice, for the inventor has so managed to combine the dye with the basis of the cake that the dye bath does not stain the human skin. It will be evident to any chemist who knows the theory of dyeing that this is perfectly attainable, because the process of dyeing is chiefly a process of chemical combination, the colouring-matter uniting with some constituent of the fibre which is to be dyed. That constituent may not exist in the human skin, hence there should be no staining of the skin when the hands are dipped in the dye-bath. Whether this is the theory upon which the invention is worked or not we do not know. At all events, Maypole soaps do furnish a dye-bath into which the hands may be dipped with impunity. The colours are beautiful, and may be used for silk or cotton. The soaps are put up in 4*oz.* packets, with the exception of the black, which sells at 6*oz.*, and the company supply liberal advertising material in the shape of chromolithographic cards and handbills, and samples of silk, thread, and silk-ribbons dyed in various colours.

RANDALL & SON.

THE infusion of new blood into this old-established Southampton firm has had the effect of developing its resources in the wholesale and export departments, and during the present year they have made a considerable extension of their laboratories on Lansdowne Hill, to meet the development of this side of the business. One group of their manufactures which should be of special interest to colonial chemists is a series of concentrated mixtures, which have already enjoyed much favour at the hands of English medical men. These cover nearly all common complaints, such as dyspepsia, coughs, diarrhoea, biliousness, lack of tone, and so on. The preparations are such that when diluted with 7 parts of distilled water they form excellent mixtures. They are well suited for counter-prescribing, and, as they are based upon the prescriptions of successful physicians, they can be relied upon so far as efficacy is concerned. Pharmaceutically they are excellent products. Allied to these preparations are the firm's liquors for making infusions and tinctures, or for direct administration, as in the case of several copaiba and santal liquors, and a number of combined preparations of bismuth, pepsin, &c., which have of recent years become so popular with medical men. Then we have also to note a sample of hospital chlorodyne which they have submitted to us, and one of their latest specialities is a coca-wine, which they are prepared to supply to chemists in bulk or in 1*s.* or 2*s.* bottles, the latter being ordinary medicine-bottles, handsomely labelled. The firm have had quite a run upon this wine recently, and we are not surprised, for it is a well-made article, and in this tropical weather an ounce of it makes, with a glass of soda-water, a pleasant, bracing drink. A nice effervescing saline, several granular preparations, and malt extract (plain and with cod-liver oil) are also amongst the samples submitted for our inspection. It may be noted, in regard to these manufactures, that they are made under the direct supervision of the junior partner, Mr. H. Wilson, F.I.C.,

whose competence as a pharmacist is attested by his long experience in Manchester. His firm have good laboratory resources. They publish price-lists of crude and ground drugs, as well as galenical preparations, which may be obtained on application. In regard to the export trade, they have just completed arrangements for filling orders for the varied classes of goods which colonial druggists must carry in their stock. We may add in this connection that they have received the contract for fitting up and stocking the chemical laboratories of King Edward VI. Grammar School in Southampton.

L. R. VOIGT & CO.

THIS firm, whose offices are at 25 Great Tower Street, E.C., are the London agents for the well-known Wiesbaden Gout Water. One of the principal features of this water is that it is almost destitute of potassium salts, which, according to Sir Dyce Duckworth and others, are not a desirable medication for those who have gout and heart troubles associated. In its composition the water contains the following solids per litre:—

	Grammes
Sodium chloride	7.4766
Potassium chloride	0.1780
Lithium chloride	0.0221
Ammonium chloride	0.1165
Sodium bromide	0.0048
Sodium iodide	trace
Sodium sulphate	0.0957
Sodium carbonate	0.3221
Sodium bicarbonate	8.1557
Calcium bicarbonate	0.0931
Magnesium bicarbonate	0.2774
Strontium bicarbonate	0.0347
Ferrous bicarbonate	0.0014
Sodium arseniate	0.0002
Sodium borate	0.0009
Silicic acid	0.0631
Total solids	16.7123

This is a recent analysis made by Dr. Ulex, of Hamburg, and we repeat it here because many of the text-books contain analyses of somewhat ancient date. The Wiesbaden spring is much resorted to by those who suffer from uric acid diathesis, and the spring is now under the control of the municipality, who pack the water. The evidence appears altogether to favour the opinion that the benefit derived from the Wiesbaden Spa is chiefly the result of drinking this water, and not as in many cases partly a matter of climatic change. That this is so will appear to anyone who cares to read the lecture by Dr. Nordhorst, which has been translated into English, and is printed in pamphlet form by the London agents. The water is put up in cases of one and three dozen each.

THE BERKEFELD FILTER COMPANY (LIMITED)

inform us that they have recently fitted the Middlesex Hospital with their well known filters, which are becoming appreciated in a high measure by surgeons, because they give them a quick supply of sterile water. The hospital authorities had tried the filters for six months in their convalescent home before deciding to put them in the hospital.

BURROUGHS, WELLCOME & CO.

send us a few of their new solids and tabloids. The former include the following:—Zinc chloride, gr. j.; corrosive sublimate, 1.75 gr.; silver nitrate, gr. j.; and potassium permanganate, gr. j. In addition to being different in shape from tabloids, solids are coloured (in the case of those solids which give colourless solutions), so that the eye may see that

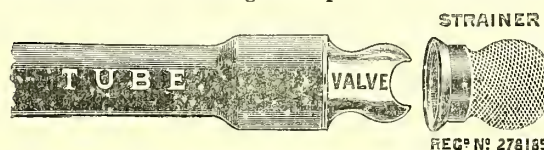
they are out of the ordinary and not like liquids that are swallowed. The new tabloids are of uranium nitrate, now used in the treatment of diabetes mellitus, and piperazine gr. v. The latter is a notable achievement in compression, for the chemical is one of the most refractory to submit itself to this method of bringing it into a fit state for administration.

VEERASAWMY & CO.

THIS is a firm of native Indians who have recently established themselves at 234 Rye Lane, S.E., and we have received from them a sample of curry-powder which they import from India. It is called Nizam Madras curry-powder, and it is put up in bottles and tins, with full directions for making curry as in India. The powder is also sold in bulk to chemists who wish to retail it as their own. We have never been in India, but we have eaten dozens of curries "as made in India," and not until we used the Nizam Madras curry were we fully able to appreciate the enthusiasm of Anglo-Indians in regard to curry. It is really delicious.

REYNOLDS & BRANSON,

of Leeds, submit to us a sample of a new enema-valve strainer, which is exactly reproduced in the subjoined illustration. It is a little gauze cap to come over the end



of the enema, and should be very useful in keeping back any solid particles, such as bits of soap in a soap-injection. Its usefulness will suggest itself to chemists.

THE BRITISH ELECTROZONE CORPORATION (LIMITED).

DURING the past few weeks medical men throughout this country have received samples of the new antiseptic products, "Electrozone" and "Meditrina," to which we referred in reporting upon the Nursing Exhibition. These antiseptic fluids are made from sea-water by electrolytic action, according to a process devised by Mr. Woolf. The process has been at work on the manufacturing-scale in New York for some time, and the products have been used by public sanitary authorities and favourably reported upon by them, as well as by bacteriologists and chemists of repute. The above-named company, whose offices are at Trafalgar Buildings, Charing Cross, W.C., have secured the patent rights for this country, Europe, Asia (less India), and Africa, and they are now carrying on the manufacture of the products. It is well known that when an electric current is passed through sea-water, the various haloid salts in it undergo decomposition, and the chlorine and bromine set free are fixed as hypochlorites and hypobromites. "Electrozone" and "Meditrina" are, therefore, substantially solutions of sodium, magnesium, calcium, and other hypochlorites, &c., with a large percentage of undecomposed chlorides, and have the odour of liq. sodæ chloratæ, B.P. There is no doubt of the efficacy of the solutions as bactericides and disinfectants. "Electrozone" is put up in 40-cz. bottles to retail at 1s. for domestic purposes, while "Meditrina" is intended for toilet-purposes, and is put up more elegantly than "Electrozone," and to retail at 2s. 6d. The corporation issue a pamphlet in regard to the properties and uses of the preparations.

British Pharmacies.

THE first selection of British pharmacies which we printed a few months ago contained a representation of the exterior of the pharmacy which the President of the Pharmaceutical Society of Ireland has fashioned according to his own high pharmaceutical tastes. It is entirely a coincidence that we introduce another selection with a view of the pharmacy in which the ex-President of the Pharmaceutical Society of Great Britain is the Principal. This is the pharmacy of

DINNEFORD & CO.

No. 180 New Bond Street, W., has been a pharmacy within the memory of living pharmaceutical man. Mr. Charles Dinneford was the founder of the business. He was also a founder of the Pharmaceutical Society, and a member of its first Council; but he did not live to see the Society on the high road to its present influence, for death seized him



while on a visit to Dusseldorf in 1846. Before his death he had formed a strong respect for a young assistant of Faraday's—John Carteighe—and got him to enter his pharmacy with the object of supervising the chemical operations conducted therein. Thus it happened that on Mr. Dinneford's death Mr. John Carteighe combined with Mr. J. E. Stuart to purchase the business. Mr. John Carteighe's brother Michael was a boy then, but he knew that pharmaceutical chemistry was to be his life's work, and entered upon that career by beginning his studies in University College! In his innocence he thought that the best way to prepare himself for pharmacy was to become a thorough chemist, and he could get no better mentor than Dr. Thomas Graham for that purpose. Some good angel rescued him, sent him to a well-known pharmacy in Sloane Street, where he was duly indentured, and from there he entered as a pupil at Bloomsbury Square, with what result the pharmaceutical world knows. Mr. Michael Carteighe got his partnership in Dinneford's in 1863, and has taken an active part in the business ever since, especially in the supervision of the manufacture and distribution of the fluid magnesia, while Mr. Stuart has been front-counter man most of the time. No. 180 is an old-fashioned, double-fronted shop, and the interior has an old-world look about it. Stores and the like have had little effect upon its retail and dispersing connection, which is in every sense first class. Mr. Carteighe is not often seen behind the counter, but he is generally within earshot. Some people in the trade imagine that Mr. Carteighe is a sort of pharmaceutical dilettante, so far as the official and practical sides of it are concerned. He has so distinguished himself as an official administrator and propagandist that it is not expected of him that he should bat as well as he can bowl. Here is a good story which shows that he can score off his own bat when he is face to face with cutting-bowling. A peaceful-looking country clergyman took into No. 180 a prescription for two dozen pills, cautiously asking the price, which he was told was somewhere near a florin. Then a warmish discus-

sion ensued, which brought Mr. Carteighe to the front. He seized the points of the case at once, and quietly asked the clergyman to be seated while he endeavoured to convince him that the charge was reasonable. We shall suppose that the prescription was this:—

Ferri arseniat.	..	..	..	..	gr. $\frac{1}{4}$
Quin. sulphat.	..	..	..	..	gr. i.
Ferri redact.	..	..	..	..	gr. ss.
Ext. gentian.	..	..	..	..	q. s.

M. Ft. jil. Mitte xxiv. arg.

As Mr. Carteighe proceeded to compound the pills he kept up a running commentary to the following effect:—

"You, as an educated man, can appreciate exactitude. This ingredient is a potent one, and each pill must contain a 24th of a grain of it. I weigh 1 gr. in this balance as carefully as I can, and my assistant looks on to see that I have the proper article, and that the right weight is taken. I must now triturate this with another ingredient, which I will now weigh [ferrum redactum]. I put a little of that in the mortar with the potent ingredient, triturate; a little more of the black powder, triturate; the rest of the black powder, and again triturate. Now we must get the next ingredient [quinine] and do that in the same way. You see, there is little chance of the powder not being a uniform mixture of the three ingredients. The prescription says I am now to take a sufficiency of harmless extract to make a pill. How much is a sufficiency? Of course, the doctor expects me to know that—it has been my business to learn. Well, I shall take a weighed quantity and note it in our prescription-book, so that if you want the pills again you will get them exactly the same size. Now I have to beat these ingredients into a uniform mass, and there is an art in that—the art of pharmacy. You will bear in mind that before these ingredients are put into stock we test them to see if they are right. This we have also to learn through chemistry. Some things we make ourselves, because we have no other means of ensuring that they are right. All that is included in the prices we charge. Now the mass is ready, I believe. I have next to divide it into twenty-four pills of equal size and weight. This is the pill-machine. You see, it looks simple enough when you know how to do it. I must not make the roll thin at the ends and thick in the centre, which is very easily done but is not good pharmacy. Now I cut it into pills, and we shall see that they are all equal in weight. Yes, they are. I shall coat them with silver now, put them in a box, label them—and, let me assure you, my assistant is qualified to do all this as well, perhaps better than I—is it not worth a florin?"

The clergyman was so conscience-stricken that he had to assuage his feelings with a half-guinea box of "Gegenüber" eau de Cologne. If everyone in the trade could meet cutting in that way, how few grumblers there would be in it!

A HOMŒOPATHIC PHARMACY.

THE Exhibition year of 1851 is one of the most momentous years of this century, so far as British commerce is concerned. Some say that it marks the beginning of the decline of our trade, or, rather, of the uprising of our competitor, who came, saw, and went home to imitate all that was best and greatest of British produce. Doubtless there is another side to the picture, and if we lost somewhat by the first World's Fair, we unquestionably gained in influence and in prosperity. Then, many came to London and stayed here. Amongst those was a chemist's assistant from Hull, Mr. Frederick Ross, who had been nurtured, according to the allopathic faith, in all that pertains to the preparation of medicine. Mr. Ross extended his experience of pharmacy in the Metropolis; but within two years Mr. James Leath, the St. Paul's Churchyard homœopathic chemist, offered him the management of his West-end branch at 9 Vere Street, and after some hesitation Mr. Ross accepted the appointment. This was in 1853, and Mr. Ross entered upon his new engagement with a certain indifference to the Hahnemann doctrine; but he was not long in Vere Street before he began to see that there was something in it, and within a couple of years there was no more ardent homœopath in the kingdom. We may say here that Mr. James

Leath established himself in St. Paul's Churchyard in 1835, his pharmacy occupying one of the most historic spots, perhaps, in England, at the the top of Doctors' Commons, but it has now been wiped out by the advance of the ruthless renovator.

The City business is now carried on at 27 and 28 Old Jewry, the only City address of the firm, but their manufacturing business is still situated at 9 Vere Street, and remains under the superintendence of Mr. Ross as heretofore. The Vere Street premises, which we illustrate, have been rebuilt within the past few years. This establishment is admirably suited for the business. The retail pharmacy is a long, well-lighted shop, handsomely fitted up in mahogany, and not differing much on the counter side from the ordinary allopathic



pharmacy, except that all the bottles are of actinic glass. At the back of this is Mr. Ross's private office, and the basement is wholly devoted to the manufacture of medicines and the despatch of wholesale and export orders.

Mr. Ross has seen many changes in the homœopathic-medicine trade in the twenty-two years he has controlled the wholesale business. In his earlier days there was no difficulty in obtaining 6s. per dozen for shilling tinctures, triturations, &c., but competition has reduced the wholesale prices to not much more than half. Through all this time, however, and notwithstanding the lower prices, Mr. Ross has gone on conscientiously manufacturing homœopathic medicines in exact accordance with the directions of the Homœopathic Pharmacopœia down to the minutest particulars. He is, if possible, a more ardent believer in the homœopathic doctrine now than he was when he first became a convinced disciple of Hahnemann's. He believes fully in the development of potencies, and he tells most interesting records of the effects of two-hundredth dilutions which have come under his own observation, and he would regard as a disgraceful fraud to send out a tincture or a trituration which had not been subject to the exact treatment which its label indicated.

W. G. CROSS & SON, SHREWSBURY.

MARDOL may still be called a suburb of that ancient town Shrewsbury, and there one of the leaders in pharmaceutical politics hangs out his sign—to wit, Mr. William Gowen Cross, whom we may still call the younger, although his father, who had the same name, died fifteen years ago, for Mr. Cross does not seem to grow older with the years. When we asked Mr. Cross to allow us to sketch the front of his pharmacy, he modestly said, "It is scarcely worth it," pleading that the only thing which distinguished it from other shops in Shrewsbury is its plate-glass front, the first put in in that quarter. Now it is not everyone who knows that a plate-glass window fifty years ago meant six panes, but there is the evidence of the sketch in proof of it. May it long remain as it is!

But there is more to be said about the Mardol pharmacy and its occupants. The house has been associated with physic, Mr. Cross tells us, for nearly a century, and is specially interesting from the fact that it exhibits the phases of evolution from druggery and grocery, through the apothecary, to pure pharmacy. In 1826 the shop was bought from its grocer-druggist owner by an apothecary named Onions, who at once abolished the tea, sugar, and tobacco department and made the business an apothecary's shop pure and simple. To him the late William Gowen Cross was apprenticed in 1831. After Mr. Cross had served "the seven long years"



he came to London to gain experience, and became associated with such fathers of pharmacy as J. Hotham Pigeon and Jacob Bell, and early associated himself with the Pharmaceutical Society as an assistant, his name appearing on the 1841 list. In 1846 he bought his old master's business in Shrewsbury, Mr. Onions having advanced a step higher by becoming a M.R.C.S. It was then that Mr. Cross took out the two old-fashioned bay-windows and put the plate-glass front in the place of them, and at the same time the floor of the shop was lowered so as to do away with three stone steps which customers had to mount. One of the old school of travels tells of his first visit to the shop before its transformation. Scattered upon the floors of the windows he saw a collection of dusty poppy-heads. Chamomiles, senra, and Epsom salts were shown in rough wide-mouth bottles interspersed among the capsules. A background of curiously-fashioned bottles, partially filled with red, blue, and green fluids, each purporting to be distinguished from the others by a label of cabalistic shape, completed the outside show. Climbing the steps the young commercial did not find the interior inviting. The counters were unrelieved by stock or glass case, and the stock-in-trade was contained in crowds of dirty bottles which stood interspersed with funnels and antique mortars on such shelves as were formed by the tops of the stacks of drawers 4 feet high. On the occasion of the visit the proprietor had covered one counter with a length of calico, and was converting it into sticking-plaster. The traveller thought this an excellent opportunity for business on modern lines, and confidently suggested to the proprietor that he should buy the plaster ready made from him; but with greater force than politeness the young monkey was told to get out of the shop, and not interfere with a business of which he knew nothing.

Since these days there have been great changes in the shop, and the fittings, though old, are consistent with the demands of first-class pharmacy. When Mr. Cross took over the business he began to develop it in accordance with his familiarity with the neighbourhood, to which he added ideas learnt in London. As a farmer's son, he had a good acquaintance with neighbouring farmers, and, probably because there was no "Veterinary Counter-practice" in those days, he had studied medicine from the point of view to make it useful for the farmers' stock. He at once commenced to cater for his friends, and with such an amount of success that many veterinary preparations are still in good demand which are made from the identical recipes which he at that time devised. Meanwhile the dispensing and retail business has developed on higher lines, and the present Mr. W. Gowen Cross has had much to do with this development. As already stated, his father died in 1881, after having served the Shrewsbury municipality as councillor, alderman, and mayor for a quarter of a century, and the Pharmaceutical Society as their local secretary till his death.

Mr. W. Gowen Cross, jun., was initiated into the mysteries of pharmacy by his father, and after studying in the School of Pharmacy passed the Major in 1870. His connection with pharmaceutical politics commenced when he joined the late Trade Association, of which he became President. He went into the Pharmaceutical Council on the reform wave of 1886, while he was still occupying the presidential chair of the Trade Association. He soon gave evidence of his administrative ability, and in 1892 was elected Vice-President of the Society, which office he retained for three years. Mr. Cross has followed his father's footsteps in regard to municipal matters—is an alderman, mayor, and J.P.

ULTIMA THULE.

IF there is a pharmacy further north in the British Isles than the one which we sketch here, we shall be glad to hear of it. This is 101 Commercial Street, Lerwick, Shetland, where in



the autumn and winter the climate is forbidding and hard, and the houses are built of cold grey stone with walls 18 inches or more in thickness. A glance at the sketch shows that Mr. Laing, the proprietor of this Ultima Thule of British pharmacy, has brightened up the place with those touches familiar to us in southern climes—swan-necked carboys, statuettes, a good display of specialties and "Frog in your Throat." As to the last, fogs are almost eternal during the Shetland winter, and there is room for plenty of the "frog" remedy. Those who think that cutting is peculiar to large towns may be surprised to hear that when Mr. Laing opened this shop in Lerwick ten years ago he found cutting in full swing. Yet there were only two drug-shops in the place, and as Lerwick doctors dispense their own medicines, one can imagine what a nice time the druggists had. Mr. Laing did not feel eager to participate, for he is a strong anti-cutter, so from the start he made a feature of his own specialties, and he has a "Thule Bouquet" which Lerwick visitors take as a souvenir. Business far north there is much as it is elsewhere, but the people are not rich, and are not fonder of physic than other Scotchmen. So the day's work is "the common task, the busy toil" of old, with a good deal of

simple counter-prescribing to do. Amidst it all Mr. Laing has had time since 1888 to serve the town as a councillor. He is convener of a committee for the purpose of promoting the development of the postal service between Shetland and the mainland of Scotland. This committee is associated with one of the Shetland County Council in making representation to Government with a view to obtaining the boon of a daily mail service. At present Shetland only has three mails per week during winter and five in summer, most of the steamers calling at Orkney on the passage both north and south, thus occasioning much delay. The Shetlanders are now claiming daily and direct mail communication.

Since the foregoing was written we have heard of a pharmacy further north in Britain than Mr. Laing's. Mr. J. A. Robertson, of Fraserburgh, last year opened a temporary chemist's shop at Baltasound, on the Island of Unst, the most northerly of the Shetland group. Owing to the large number of people congregated at Balta, the shop, though plain and only carrying a limited but useful stock, proved itself a boon to the people engaged at the herring-fishing. It is open this summer again.

Dr. Jim's Prescriptions.

WHEN Dr. Leander Starr Jameson cultivated the gentle art of prescribing in Kimberley, S.A., the prescriptions which he wrote were such as this:—

Mr. W. W. R. Child
 107 1/2 E. cutie f.p.
 107 1/2 P. W. R. f.p.
 107 1/2 S. A. B. f.p.
 107 1/2 T. W. R. f.p.
 107 1/2 P. W. R. f.p.
 107 1/2 S. A. B. f.p.
 107 1/2 T. W. R. f.p.
 107 1/2 P. W. R. f.p.
 107 1/2 S. A. B. f.p.
 107 1/2 T. W. R. f.p.

We are indebted to a South African chemist for half a dozen original prescriptions similar to the above, which we have reproduced on a slightly reduced scale. They were all written in 1888, and Dr. "Jim," as he has been familiarly called since he abandoned physic for politics and raiding, wrote in pencil. His signature is characteristic. It looks like "W. J.," but in the originals it is possible to detect dots between the limbs of the "W," and to anyone who knows the eccentricities of doctors' handwriting the "W" is easily converted into an "L. S." The prices charged by the Kimberley chemist are fairly indicated above. The others are:—3vj. mixture, 3s. 6d.; 3vij. ol. santal. mixture, 5s.; ergot draught, 1s. 6d.; 3vij. iron and pot. chlor. mixture, 4s. Dr. Jameson was reputed to make 6,000l. a year when he was in practice, and he is such a good doctor that we may, without bias, hope that he will soon resume the practice of physic and leave the art of war and the trammels of politics to more blustering persons.

PEOPLE WHO COME IN.

HOW THEY LOOK, AND WHAT THEY SAY.

THE scene this time has a Northern aspect. Old Lady: M—m, ay: Give me a small quantity of salts and cream of tartor." Being supplied, she pays, then stares long and earnestly at nothing, makes up her mind, and asks, "What is the cheapest you can give me a teeth-brush for?" I show her some, and tell her the prices. "M—m, ay; I'll take a sixpenny one." "Thanks. Do you prefer a hard or soft one?" "Middling hard. Ye see, I tak oot my teeth to clean them, so it'll no hurt my gums."



A CYCLITIS PATIENT.

OLD HIGHLANDMAN, patriotic apparently, for his order is "Fruppence wort of MacGregor's mixture."

I HAVE known customers pay 4d. in car-fares to save a halfpenny on a patent, and buy nothing else on their way in or out. That is economy.

NEXT gentleman likes to doctor himself; wants "a little tonic, you know; run down—nerves and that sort of thing, you know. Just give me a little draught, say—an ounce of liquor strychnie and a drachm of taraxacum; m—m, yes, that's about it, I think." I suggest that the 1 oz. liquor strychnie might be too much. "Well, yes, perhaps it is a little too much," he returns. I give him 5 m. and he goes off happy.

LITTLE BOY comes in with a paper: "Mr. —, please make up the mecidis (this crossed out, and re-written correctly?) meidnis, and I will pay." While making up the "meidnis" the door opens. Tap-tap-tap on the counter. "Charge a pound?" "I'm sorry I can't." "Ye set of blooming hard-up weeds. Can't charge a note? What's the use of you? May the Lord give you patience," he added piously, "till I come back!"



THIS IS THE BOY.

YOUNG LADY.—"You might give me some fly chemistry, which I see in your window." She goes away with a few "Cemeteries."

IN the slack of the evening "Bang!" goes the door. "Where are you? Come out of that! Oh, oh! I see you. Toroo-toroo tarrara-arradee!" I come round and find a swell, pretty

well "screwed." He greets me with "Why should you die? Are you going to die? What, stick here all your life wasting away, selling powders and castor oil for sore bellies.

Oh, — the whole thing, why should you die? Let them die if they want to. Come away with me and leave the whole confounded show. Come and enjoy yourself. Toroo-toroo-tarrara! Man, I love you. I don't require physic, not likely. Do you mean to kill yourself? No, certainly not. Man, I love you. I won't let you die. Come and see the other fellow. Toroo-toroo—Oh—you—rascal—you're laughing now. Toroo-toroo-tarar-arar-ara. Man, I love you. You come with me." I said I was sorry I could not leave the shop, and then he burst into tears. "Excuse me," he pleaded, "but I'm

—I'm a very excitable man—bohoo-o-o. I don't mean any ha-harm. I used to be a strong man." Here his voice failed him, and all at once he looked vicious and said, "I—I could smash any man in town—but I'm—I'm not well." I coaxed him round a bit, and finally got rid of him gently. Next day, he called, sober as a judge, to ask, "Are you better now?" "Oh, I'm all right; nothing wrong with me," I returned cheerily. "Somebody was unwell yesterday," he continues—"was it I?" "Oh, never mind that," I said; "we'll say no more about that." "Very good id a. We'll say no more about it, then. Did I leave my umbrella?" I said he did not bring one in, and so he departed.



SHE IS ONE OF THEM.

THE OLD, OLD TROUBLE.— Woman comes in for vin. THE OLD-FASHIONED DRUGGIST. ipecac, and wishes to get the proper pronunciation of it to settle a domestic dispute. "Is it ipcanic or ipicanuic wine?" she asks. I pronounce the word very distinctly. "Yes, I knew I was right. Thank you." Our customers have discovered a neat way out of the difficulty by saying "Eppie what's its name."

"PLEASE give me a cake of vestal vinolia." "Yes, madam. It is a very nice soap for the complexion." "Oh! but I use it for Toby. It makes his coat shine so!" And I felt how vain are the efforts of man's mind to please fair woman.



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THESE are a few of the people who come in.

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INTERNATIONALISATION OF SCIENCE.

THE international Congress of Scientists which has just been
held in London is an historical event with which pharmacists
are in some measure interested, since it touches the scientific

subjects at the base of their craft. The Congress originated with the Royal Society, which thirty years ago commenced the catalogue universally known by the short title "Science Papers." This catalogue is more useful to writers than to workers, for it is an author's index, or catalogue of published papers ranged under the names of the authors thereof. When the Royal Society came to close quarters with the greater part of their scheme—viz., the subject catalogue—they found that the work would be too stupendous. The difficulty was mentioned to scientists abroad, and as soon as it became evident that scientists irrespective of nationality would share in the work, the British Government issued invitations to other Governments with the result that last week there met together in the rooms of the Royal Society distinguished professors and scientists from and representing Austria, Belgium, Denmark, France, Germany, Greece, Hungary, Italy, Japan, Mexico, the Netherlands, Norway, Sweden, Switzerland, the United Kingdom, the United States, and Canada, Cape Colony, India, Natal, New South Wales, New Zealand, and Queensland, representing Greater Britain. Sir John Gorst, the direct representative of the British Government, was appointed President of the Conference, and he named the following as Vice-Presidents: General Ferrero (Italy), Prof. G. Darboux (France), Prof. Ernest Mach (Austria), Prof. Möbius (Germany), and Prof. Simon Newcomb (United States). The Secretaries of the Conference are Prof. H. E. Armstrong (English), Prof. Forel (French), and Prof. Dyck (German), each representing one of the official languages. So far the Congress have determined that their operations will be confined to pure science, so that such subjects as medicine and other applications of science will not come within their purview. The chief object of the Conference has also been achieved by the unanimous agreement to commence the cataloguing of all periodical scientific literature published by scientific societies throughout the world. It is proposed to begin with the year 1900. The Royal Society of London has been selected as the body to supervise the work for the future, and the Society undertakes by itself to complete the record up to the end of 1899. In the original scheme a central office or bureau was contemplated, maintained by international contributions, and regularly supplied by the foreign subscribers with all the information necessary for the construction of the catalogue, and it was hoped that the bureau might be the centre for tabulating scientific data as they came to hand in the papers supplied. These details remain for settlement, but the important fact is that London has been made the scientific centre of the world, the repository of the archives of scientific discovery, and the source whence all who are devoted to scientific research must turn for an index to the literature which marks the progress of science. An international council has been formed which will direct the London bureau, and the catalogue will be prepared and issued under its authority. Several secondary questions of importance remain to be settled—for example, that of classification—and whatever the bureau decides will be ultimately adopted by all scientific journals throughout the world. A certain degree of uniformity of nomenclature will also be involved, and that will have an immense influence upon the progress of science. The direct result of the work will be that many obscure publications will be made accessible, and it will help to minimise needless republication of the same subject-matter in authoritative journals.

This scheme, as we have said, is to apply to pure science only. But a comprehensive index of the kind is just as necessary for medical and pharmaceutical literature, and it is to be hoped that the example of the Royal Society will be followed by some representative body in medicine.

JOHN COMPANY.

WHATEVER may be thought of the policy of governing vast expanses of barbarism by the agency of private trading corporations, there can be no doubt this empire owes its present commercial pre-eminence in a large measure to the enterprise of the chartered companies who first settled most of the Greater Britain of to-day and exploited the natural riches of our colonial soil. The reign of the great East India Company, the largest corporate body the earth has ever seen, was the Golden Age of "Mincing Lane," and the rise of our Eastern drug and spice trade is directly due to the pioneering enterprise of the East India, the Turkey, the Russia, and the Cathay Companies. Indeed, it is a commonplace that it was largely for the sake of securing this trade that we first ventured in the Indian seas and fought the Dutch and the "Portingales."

It seems to us that more might have been made of this very interesting branch of trade in Mr. Geo. Cawston and Professor Keane's "Early Chartered Companies," which has just been published; but perhaps the authors required all the space at their disposal to deal with the political and economic aspects of the chartered companies from Henry III. to Charles II., and were thus compelled to restrict themselves to the smallest compass in referring to actual trading operations.

How many people are aware that there was a "Made in India" agitation two centuries before anyone had heard of "Made in Germany"? That is a fact nevertheless. In 1681 the Turkey Company, a rival concern of the East India Company, brought a charge before Parliament through a Mr. Pollexfen—who appears to have been the Sir Howard Vincent of his generation—accusing the India Company of "exporting immense quantities of gold and silver with but little cloth, bringing back calicoes, pepper, wrought silks, and a deceitful sort of raw silk," the importation of manufactured goods from abroad being "an evident damage to the poor of England." The East India Company were further accused of encouraging manufacturing industry in India, and the same dire consequences were predicted to our home industries that are now prognosticated from German rivalry. Nobody, however, seems to have been one penny the worse in the end.

This great East India Company, which for several generations stood for the name of Britain in the East, which brought millions upon millions of money into this country, and founded an empire in Hindostan, was established by a Royal Charter of Elizabeth in 1599 with a capital of only 72,000*l*. Four years later the first cargo of pepper and other spices was imported into London by the adventurers "after a prosperous voyage of two years and seven months," and sold, no doubt, to their own exceeding profit. What gains were made on imported produce in those days is shown by Malyns in his "Centre of the Circle of Commerce," a contemporary work, from which it appears that the difference between the cost and the sale price of some of the Company's chief imports in 1623 was as follows:—

	Cost in India	Sold in England at
	per lb. <i>s. d.</i>	per lb. <i>s. d.</i>
Pepper	0 2½	1 8
Cloves	0 9	5 0
Nutmegs	0 4	3 0
Mace	0 8	6 0
Indigo	1 2	5 0
Raw silk	8 0	20 0

What the City middlemen made in those days one can only conjecture. The mere enumeration of the figures is enough to make a modern Mincing Lane man's mouth water.

In a book dealing with the early British trade with India we naturally expect to find a reference to the now discredited poison-antidote hezoar. Mr. Cawston gives, as the derivation of that word, the Persian *pad-zahr* (lit., "poison-expelling"), meaning "antidote." The Persians employed the name specially for the balls of siliceous matter occasionally found secreted in the intestinal canal of the Persian wild goat, but the East Indian bezcar, as we now know, was mostly derived from monkeys. The popular delusion of the efficacy of the drug in the mental, as well as in physical, afflictions is shown in the line from a contemporary author, where "the healing hezoartical virtue of grace" is mentioned.

Less accurate is Mr. Cawston's reference to "worm-seeds," which were among the first articles imported from India, as "short for wormwood seeds, the seeds of *Artemisia maritima*, still used in India as a stomachic tonic." The seeds brought over by the early Indian traders under this name were probably the Indian variety of *Semen Cina*, the worm-seed which is now chiefly imported from Russian Central Asia for santonin-manufacture. The seeds of the wormwood, or absinthe plant, have no connection with them except that both plants are *Artemisia*. The spice-trade of the Company received a heavy blow in the early years of that corporation's activity by the expulsion of the British from the Moluccas, or Spice Islands, by the Dutch; and from that time may be reckoned the definite establishment of a competing spice and drug market at Amsterdam, which is to-day as serious a rival to London as it has ever been before.

The long duration of the lucrativeness of the Indian trade of the East India Company is shown by the fact that in 1726 it was computed that of the Company's annual imports, representing an aggregate value of 22,000,000*l.*, not less than 8,000,000*l.* was clear profit.

Tea became a trading article of the East India Company about the year 1645. It was first introduced into this country by the Dutch, and sold then at from 120*s.* to 200*s.* a pound. In 1660 the Company presented Charles II. with 2 lb. 2 oz. of the herb—a liberality which was probably well calculated, for shortly afterwards "tay" became a fashionable beverage with the Upper Ten. A four-shilling duty did not prevent the spread of that popularity, and in 1745 Parliament passed an Act threatening the Company with the forfeiture of the charter if they should fail "at any time to keep the London market supplied with a sufficient quantity of tea at reasonable prices, to answer the consumption thereof in Great Britain."

The East India Company's monopoly of the Indian trade was abolished in 1833; but the Corporation itself survived until the Mutiny, in 1857, after which it was taken over by the State—a fate that has recently also overtaken its East African successor.

It is interesting in the present day to note that the first real trading company which received a Royal charter in England was not a British, but a German, one. It was composed of traders of the Hanseatic League, who established a kind of dépôt in the City of London, at the place where Cannon Street Station stands now. For nearly three centuries the "Germans of the Steelyard" were one of the most powerful corporations in England, and it was partly apprehension of their growing influence that caused Elizabeth, in 1597, to revoke their privileges and turn them out.

THE SCHOOL OF PHARMACY.

WHEN the late Jacob Bell and those acting with him determined to open a School of Pharmacy in connection with the Pharmaceutical Society, the need of the hour was to provide apprentices and junior-assistants with training in the scientific subjects of the craft. That they succeeded in establishing an historic school and in creating a standard of education for Great Britain is admitted and proved by the long line of brilliant students who have come from the Square during the past half century. The fact that for at least twenty-five years the school was the sole pharmaceutical educational institution in this country is the best proof of the thoroughness of the education given in it. When the Pharmacy Act of 1868, with its compulsory qualification provision, was passed, it soon became evident that the Society's school could not alone satisfy the demand for education. How far this is true appears from the fact that scarcely one in ten of those who enter for the Minor examination has been educated at the Square, and to-day there are at least a dozen metropolitan and provincial schools of pharmacy. We have no desire to institute a comparison between these schools and that of the Society. Our present object is to suggest that the principle upon which the curriculum in the pioneer school has been altered from time to time is a wrong one, and that the Council now have an opportunity of renaissance, according to modern pharmacy, which should be taken advantage of.

The School of Pharmacy, owing to its seniority, comprehensive and lengthy curriculum, and comparatively high fees, does not enter into competition with schools which are run at a profit. The Society has deliberately decided that it shall continue its school at a loss—that is to say, endow the chairs at the Society's expense—and thus at the outset it is not in the running with profit-making schools. Nevertheless, on one or more occasions, the Council have altered the curriculum of the school so as to make it more popular, and the unfortunate mistake has been made of changing according to the modern method of teaching rather than in sympathy with the changes of pharmacy. Since Jacob Bell's day there has been a complete change in the manner of learning pharmacy. Long-indentured apprenticeships have given way to three or four years' pupilage, and instead of every retailer making the majority of the galenical preparations which he sells, it is the exception to find a man who does not buy nearly all. We may regret this, but mourning about it is as vain as to mourn for Queen Anne. What is needed is to supply the deficiency, and the Society should adapt its school-curriculum to the principles of the founders—viz., to give the students the instruction which they cannot get in business. The opportunity has now arrived. It may have been noticed that the professors and lecturers of the school have not yet been reappointed this year. We have reason to believe that considerable changes in the teaching staff, besides those already announced, are to be made public. At the next Council meeting Dr. Reynolds Green will, it is expected, be re-appointed Professor of Botany, and Mr. H. G. Greenish's professorship of *Materia Medica* is likely to be extended. Of the ability of the teachers there is no doubt; but we trust that the Council will take Dr. Attfield's advice, and give them all first-class lieutenants. The Society already has a chemical laboratory which only needs a few touches to make it quite modern. The Botanical Histology department is, we believe, adequate if not complete; but the practical pharmacy arrangements are scarcely worthy of the senior school of pharmacy in England, and it is here that an attempt should be made to shape the course of instruction, so as to lead the way in this country.

It is a school of pharmacy, not of science. Science must be taught thoroughly as far as it goes, but it is absolutely necessary nowadays that theoretical and practical pharmacy should stand in the forefront of the curriculum. We say this in full knowledge of the fact that the Society's premises, large and valuable as they are, contain few spare rooms, and no large apartment—except a cellar beneath the examination hall, and, probably, the secretary's house—fully adequate for a modern pharmaceutical department. We feel, however, that the Council will be equal to this difficulty, and we hope they will take advantage of the unique change in the *personnel* of the staff to make a commensurate change in the *rationale* of the curriculum. To determine what can be done a committee of one, preferably the professor of the subject, should make a visit of inspection to a few of the principal schools of pharmacy on the Continent and in the United States; but although that would be an advantage we cannot say that it is absolutely necessary, as several members of the Council are well acquainted with the methods adopted in the best American and continental schools.

ABOUT DIPHTHERIA-SERUM.

WE have not yet got to rock-bottom in that fearful "made-in-Germany" problem which haunts British technologists. While the President of the Society of Chemical Industry was making this the text of his address last week, and Mr. Stead was calling for legislative action to solve it, the *Lancet* was setting up in cold type one more unfortunate comparison between English and German manufacturers, this one bearing very directly on medical science. The article is on "The Relative Antiseptic Strengths of Diphtheria Antitoxic Serums," and is a report by one of those "Special Commissions" which our contemporary well knows by long experience how to work. The results are imposing, though anonymous, and their accuracy is vouched for by the reputation of the journal, which must, of course, be prepared to pay dearly for any errors which it may fall into. The *Lancet* started its Commission over a year ago because the antitoxin or serum treatment of diphtheria did not go along so well in this country as in Germany. Not that our doctors did not try it; they did, found it wanting, and as a result in many districts of England and Scotland "the serum treatment has practically passed out of use." It was, therefore, determined to test all the serums in the market at this time last year, and to keep on testing them for a year, purchasing samples in open market and examining also all sent in "for review." Guinea-pigs are the test-tubes used in an analysis of this kind, and the way they are used is this: A toxin is selected—in this case it was that of tetanus—and the dose required to kill a guinea-pig weighing 250 grammes in forty-eight hours was found to be $\frac{1}{20}$ c.c. When such a dose is mixed with just enough antitoxic serum to completely neutralise its effects when injected into the animal, there should be no swelling at the seat of injection, no constitutional disturbance, or loss in weight. This dose of antitoxin represents a tenth of a unit, because serum which contains one normal antitoxin unit per c.c. is one of such a strength that $\frac{1}{10}$ c.c. completely neutralises the action of ten lethal doses of toxin. Taking this as a basis of calculation the number of antitoxin units contained per c.c. is determined by dividing the fraction of a c.c. which protects by 10—e.g., when $\frac{1}{1000}$ c.c. of a serum protects, the serum contains 100 normal units per c.c.; when $\frac{1}{800}$ c.c. protects, the serum contains 80 normal units per c.c., and so on. The following is one of the *Lancet's* records of

results, in this case four guinea-pigs being used, and the injection of toxin was ten times the lethal dose.

Quantity of Antitoxin Injected	Weight of Guinea-pig	Local Reaction in Forty-eight Hours	Alteration of Weight in Forty-eight Hours	Living	Died
$\frac{1}{100}$ c.c.	300 grms.	Marked swelling	-40 grms.	—	48 hours
$\frac{1}{75}$ c.c.	245 grms.	Marked swelling	-40 grms.	—	3rd day
$\frac{1}{50}$ c.c.	260 grms.	Distinct swelling	+ 5 grms.	7 days	—
$\frac{1}{20}$ c.c.	280 grms.	None	+15 grms.	7 days	—

"This sample of serum contains 5 normal antitoxin units per c.c., which, multiplied by the number of c.c. in the bottle (20 c.c.), gives a total of 100 antitoxin units."

Experiments on these lines were made with nine makes of serum—viz., three English, three German, one Belgian, one Swiss, and one French—and the results, broadly speaking, were that the English serums were very weak, and often below the strengths claimed for them. One German make was almost uniformly up to the standard claimed, another was not quite up to its own standard, and a third was a fifth of the strength claimed for it. The Belgian samples were good on the whole—viz., once exact, once over the mark, and once under, but all of them strong. The French was above its claimed standard, but too weak for general use; and the Swiss were stronger than the claim, but still too weak. By the latter expression is meant that too large a quantity of the serum is required for an injection of 1,500 normal units—the dose first recommended by Behring for a severe case of diphtheria. The following figures represent the minima and maxima of strength, in units per c.c., exhibited by the serums examined (dry serums are excluded):—

English, No. 1 (British Institute of Preventive Medicine)	20	to	95 units
English, No. 2 (Burroughs, Wellcome & Co)	..	..	3 to 10 "
English, No. 3 (Leicester Bacteriological Institute)	..	..	1 to 125 "
German, No. 1 (Meister Lucius & Brüning)	..	..	70 to 250 "
German, No. 2 (E. Schering)	..	..	70 to 175 "
German, No. 3 (E. Merck)	..	..	17.5 to 30 "
Belgian (Institut Sérothérapique)	..	..	125 to 250 "
French (Institut Pasteur)	..	..	23 to 45 "
Swiss (William Vogt)	..	..	25 to 50 "

It follows from this that to get a full dose of the best available English-made serum a subcutaneous injection measuring more than half an ounce is required! These voluminous injections are highly objectionable, and, for that reason, at least one German maker is producing serum of much greater immunity than those above noted. We await and expect some response to the *Lancet's* charges from the English serum-makers, but at present it looks as if our manufacturers have been beaten by their principal rivals. The German Government, it should be pointed out, gives its subjects a splendid start by appointing skilled inspectors for serum-factories, and by supplying normal toxin apparently for the purpose of enabling German manufacturers to send out serum of uniform strength. Professors of worldwide reputation are associated with the manufacturers in at least two cases for the purpose of ensuring that the serum is right. The consequence is that the best remedy comes from these factories. Curiously, the professors have little to do with the production of the serum. It is the horses who are responsible for that. It should be no great trouble for English manufacturers to get their product equal in standard to the German, all that is necessary, once the process of immunisation begins, being to carry it far enough, and that implies waiting. They have simply to keep on the immunisation of their horses for some months, and

stop bleeding them meanwhile. The *Lancet* attributes the comparative failure of the antitoxin treatment of diphtheria in England to the weakness and variability of English-made serums, and it is to be expected that the publication of the report will upset faith in these preparations. We fully anticipate that English makers will be equal to the occasion, and we would suggest that in order to restore confidence in their products they should have the co-operation of the Director of the Royal Colleges' Research Laboratory or other well-known bacteriologists not in their direct employ. We would gladly appeal to the Medical Department of our Local Government Board also, but drains and the possibility of disinfecting them with carbolic acid give greater scope for the Department's energies than assisting a few English manufacturers to get on a level with foreign competitors. The funny thing about the matter is that we supply horses for these foreign serum factories.

CHIPPED ATOMS.

THE mere accumulation of hard and dry facts is not by any means the sole—nor, indeed, the principal—work of scientific investigation. The facts may sometimes be turned to some useful account, though probably the majority never prove of any value whatever; but it is only when their relationship to each other is understood, and a system and harmony between them are perceived, that they become truly interesting. The alchemists got to know with a fair approach to accuracy the combining equivalents of the elements they worked with, and the knowledge thus acquired had a certain degree of utility; but it was only when Dalton wove all these facts into his famous theory that their full philosophical satisfaction was realised.

This is only another way of saying that the imagination is, after all, the most precious faculty with which a scientist can be equipped. It is a risky possession, it is true, for it leads him astray a hundred times for once that it conducts him to truth; but without it he has no chance at all of getting at the meaning of the facts he has learned or discovered.

Lieut Colonel Sedgwick, late of the Royal Engineers, who is the author of a recently published work entitled "Argon and Newton: A Realisation" (W. B. Whittingham & Co., 91 Gracechurch Street, London, E.C.), is evidently a student of science who has cultivated assiduously the generous gift of imagination with which he is endowed. We have not had the opportunity of reading his previous books, but their titles indicate an author ready to take the boldest flights of speculative fancy. They are quoted as "Force as an Entity," "Light the Dominant Force of the Universe," and "Life; the Explanation of it"—a fair share of problems for one man to solve.

The purpose of this new work of Colonel Sedgwick's is apparently to show how the discoveries of argon and helium have corroborated certain points of his theory set forth in his "Force as an Entity," as to the way the universe has been built up. He begins with Newton's hard atom, and the originality of his scheme depends on his explanation of valency. Atoms, he assumes, were at first all spherical bodies. As such they could not combine one with another, any more than marbles can be fitted one on another. But imagine this spherical atom having a little piece chipped off it. You then get a flat surface to which any other flat surface can be attached. With two chippings you get two flat surfaces, or divalency, with three chippings you get trivalency, and with four you get tetravalency. Now take the metalloids; and you will find the series run in this

way:—Fluorine 19 (monovalent), oxygen 16 (divalent), nitrogen 14 (trivalent), and carbon 12 (tetravalent). Here we have to suppose an unknown original atom of spherical form, quite inactive—that is, incapable of combining with other elements—and with an atomic weight of about 20. The first chipping yields fluorine, the second oxygen, the third nitrogen, and the fourth carbon. If it can be allowed that the atomic weight of fluorine is 18 instead of 19, we get an exactly equal amount chipped off each time; but this is not essential to the theory. The next series gives us

— (spherical)	37 to 40
Chlorine (monovalent)	35.5
Sulphur (divalent)	32
Phosphorus (trivalent)	31
Silicon (tetravalent)	

On the top of that series is the place for argon, and Colonel Sedgwick claims that he argued out the existence of that body and pretty accurately forecast its character several years before Lord Rayleigh introduced it to the world.

But though this theory goes some way towards explaining the valencies of the metalloids, it happens that the valencies of the metals require an ascending scale of atomic weights. We have, for instance, silver 108, cadmium 112, indium 114, and tin 118; or, to take the first of the series, we have lithium 7, beryllium 9, boron 11, —? 13; the tetravalent member of the series being at present unknown. Helium, with its atomic weight approaching 5, is the spherical atom heading this series, and the ingenious theory which explains why the valency of metalloids varies in inverse ratio, while that of metals increases in direct ratio with the atomic weight, is that while in the former case the flat or uniting surface is obtained by chippings, in the latter it is obtained by attachments of these chippings to the original sphere. Other loose chippings it is hinted may be the origin of hydrogen, and the half metal, half metalloid character of that element would thus be accounted for.

Colonel Sedgwick does not at present offer any explanation of how the chipping was effected. But he deals at great length with the process of bringing the atoms together and uniting them. This is done by "streams" of two forces, the one antagonistic to the other. The forces are "fluids," though what exactly is meant by that term we do not know. Those fluids act as a film, binding the atoms together by their flat surfaces, just as a film of water will bind together two plates of glass.

In thus reducing Colonel Sedgwick's fancies to the very barest exposition, we cannot avoid doing him injustice. His book is really a very learned one; his theory is buttressed by innumerable quotations from Newton, Clerk Maxwell, Lord Kelvin, and other speculators of admitted respectability. Stated briefly and without any of the arguments by which it is supported, and avoiding the digressions necessary to deal with the difficulties which any critic might raise (as, for instance, the varying valencies of the same element), the theory may seem a ridiculous one. But the book is by no means a ridiculous one. We do not believe the author has established his views, nor do we think he will convince any chemist of their validity. But his speculations are cleverly set forth, and they cannot but afford an interesting intellectual exercise to those who concern themselves with the philosophy of matter. The amazing thing is that in his preface, by a chain of reasoning which we are utterly unable to follow, the Colonel deduces from his studies an argument for the strengthening of the British navy, and the establishment somewhere in the middle of England of a fortified camp for the militia and volunteers.

THE INSECT-FLOWER MARKET.

INSECT FLOWER dealers in Trieste, the principal centre of that useful commodity, have had a somewhat exciting experience this season, inasmuch as a wild speculative movement has taken possession of the market, and driven up the prices of all varieties of flowers to the extent of between 40 and 60 per cent. The advance appears to have been justified to some extent by the admitted smallness of the crop; it was greatly assisted by large purchases on the part of American buyers, who are, perhaps, the best customers of the Trieste merchants.

British firms have not bought much in addition to their usual season's requirements; possibly because they are less easily influenced by scares in the producing country than their transatlantic cousins. The cry of "no crop" is a familiar one, and though once and awhile it may turn out to be more or less true, it generally proves to be a false alarm. On the present occasion, however, the yield in Dalmatia really appears to have fallen below the average. This is to some extent due to the fact that the Austrian Government, by encouraging the tobacco-culture, are gradually bringing about the abandonment of the less paying crops in favour of the profitable tobacco-industry, and partly because the prices of the past few seasons have been so low (in 1895 the quotations for insect-flowers fell to the lowest level on record), that there was little or nothing to be made out of growing the *Pyrethrum cinerariaefolium*, for the plant, though a quick-growing and freely-yielding one, requires costly attention and much care.

The diminished area of cultivation (it is said that last year about 4,500 acres were under this crop in Dalmatia) is not, however, the only reason of the smallness of the crop this year. The plants are said to have suffered much from the unusual summer drought, and moreover, strange as it may appear, the crop is reputed to have been harmed by the attacks of an insect pest—a kind of phylloxera. One would imagine that an insect-flower would be about the last plant to suffer from such an affliction; it reminds one of the old yarn of the man who night after night put down a quantity of "guaranteed pure insect-powder" for the destruction of blackbeetles and awoke each morning to find that the powder had been eaten by the insects as a delicacy, and that the beetles waxed fat and prospered upon it. By inadvertence he once dropped the handbill extolling the virtues of the powder. Next morning the floor was covered with the dead bodies of the enemy. The cause of death was the same in each instance—the beetles had split their sides.

To return, however, to the consideration of the prospects of the insect-flower market. For several years the crops have been unusually large, as shown by the quantity of old flowers which has remained unsold in Trieste at the beginning of each season, which is usually taken to commence on June 1. The Trieste stock on May 31, 1895, was 242 tons; on the same date of 1894 it was 266 tons; 1893, 134 tons; 1892, 213 tons; 1891, 204 tons; 1890, 110 tons. The last-named year was preceded by a couple of seasons of extremely poor crops, and speculators for a rise would have us believe that we shall this year see the conditions of 1838 and 1839 repeated. That, however, remains to be seen. The crop is now all gathered, but a considerable time is required between the picking of the flowers and the shipment of the marketable article from Trieste, inasmuch as the flowers have to be carefully and slowly dried. It is believed, on the other hand, that the consumption of insect flowers is considerably on the increase, and it should also be borne in mind that practically the whole of the requirements is now supplied by Dalmatia, portions of Montenegro, and Bosnia. The Caucasus

and Persia, which formerly yielded a considerable supply of the article, have long ceased to export anything of consequence to our markets, although the name of "Persian insect-powder"—like that of Turkey rhubarb—continues, with strange tenacity, to linger in the popular mouth. The usual division of insect-flowers for trade purposes into the three categories of "open," "half closed," and "closed" (the first-named being the cheapest and the last named the most expensive kind) has lately lost much of its importance—at any rate so far as the "half-open" flowers are concerned, the market-price for these now offering such a wide range as to be scarcely distinguishable on the one hand from those of "open," on the other from those of "closed," flowers. The so-called wild insect-flowers, supposed to grow only on the Montenegrine hills, are often quoted as the most expensive of all kinds, but it may be doubted whether the production of such flowers is at all important. It may not be superfluous while on this subject also to call attention to the danger of purchasing ground flowers without a reliable guarantee of purity. Several parcels of powder have lately been sold or shown at the drug-auctions which were by no means above suspicion of being heavily adulterated, and it is a remarkable fact that the wholesale quotations for insect-powder range from 6*l.* up to 1*s.* 3*d.* per lb. Considering that the best new closed flowers are now quoted in Trieste at from 180*s.* to 190*s.* per cwt., it is scarcely necessary further to point the moral conveyed by the prices asked for the powder.

So far it is possible to judge the conditions now prevailing on the Trieste market, it seems reasonable to suppose that insect-flowers will until next spring be quoted considerably above the admittedly unremunerative rates of the past two years. At the same time it should be remembered that the article is very much liable to be influenced by speculative movements. It seems likely that for several years to come Dalmatia will remain practically the only considerable source of supply, as the experiments made with the growing of the *Pyrethrum cinerariaefolium* on a commercial scale in other parts of Europe and in America do not appear to have been particularly successful.

PROFITS ON PROPRIETARIES.

WE published last week a list of fifteen proprietary articles which the owners have agreed to place under the protected-price agreement drawn up by the Proprietary Articles Trade Association. It is understood that no one of these fifteen articles will be supplied to any wholesale firm who will not agree to carry out the stipulation under which they are to be sold to retailers, and, further, that if any retailer cuts any one of these articles below the fixed minimum price his supply of the whole fifteen is to be cut off, if the committee of the Association, after due investigation, should so advise. We learn this week that nearly all the distributing-houses have signed an agreement to carry out these terms, only one or two of any reputation taking further time to consider.

This, then, may be regarded as the outcome of the first six months' working of the Proprietary Articles Trade Association. Two or three of the specialities named were sold under minimum-price conditions before the Association was formed. A few of the rest have not yet acquired anything like general sale, and are probably using the Association's influence in the hope of getting some share of chemists' favour. Allowing for these two classes there still remain several specialities of well-established reputation and two or three of large sale which the Association may fairly claim to have brought into the line of protected articles. It is true that the articles named constitute only a very small

fraction of those sold by chemists; the great majority still remain outside the agreement. But subscribers who expected an immediate capitulation of the great proprietors expected a very foolish thing. We think the Association is to be warmly congratulated on having accomplished any definite results at all in its first year of action. If it had done nothing in that direction it might still have claimed to have accomplished something in the way of influence, for it is an undoubted fact that the question of retailers' profits has been brought to the consideration of proprietors more effectively this year than ever before, and, as is well known, some other houses have taken steps individually with a view of protecting retailers' profits, or have that policy in contemplation. As a matter of fact, the actual results gained should yield to even the smallest dealer an extra profit more than sufficient to balance his subscription to the Association. Those chemists who wish to regain something approaching the profits of old days on proprietary articles can now do something towards bringing them back, by loyally carrying out the spirit of the agreement in regard to those on which the experiment is being tried.

There is a *contra* side to the account. Quite recently the proprietors of one of the most popular of modern patent medicines have issued a notice which we can hardly regard except as a defiance of chemists and their anti-cutting ideas. The Carter Medicine Company is managed by men on both sides of the Atlantic who know as much about the conditions of business in the patent-medicine trade as anyone need want to know. By a stroke of the pen they add some 20 per cent. to their revenue. If they can do this without materially damaging their revenue, who can blame them? They have found that vendors have been satisfied with a halfpenny profit so far, and believing that the public will give 1s. for their pills as willingly as 10d., they have fixed the price so that chemists can sell them at 1s. and still secure the coveted halfpenny. On that policy we make no comment; but associated with it is the offer of an extra penny to firms who can take five gross of the pills at a time. By this policy the Carter Company expressly court the cutters, who are, of course, the only retail five-gross men. The cutters are still selling at a halfpenny profit, or even less, which makes it impossible for the ordinary chemist to compete with them except at a loss. The Carter Company must have foreseen this result, and we presume they do not care. They probably have no more love for the cutter than for the ordinary chemist. They consider their advertisements sell their pills, and that chemists and cutters are all mere slot-machines. In regard to Carter's pills, therefore, chemists have now the choice of keeping them and selling them at no profit, or of insisting on a profit and being undersold by their neighbours, or of refusing to stock the pills. The experiment is likely to be an instructive one, and we shall watch it with interest.

THE OPIUM-CROP.

THE telegrams and letters from our Smyrna and Constantinople correspondents published in this journal during the last two weeks will have prepared our readers for the advance in the prices of opium which has since taken place. At the moment of going to press our Smyrna correspondent wires us as follows:—"The crop news during the past few days has been extremely bad, and the market here has advanced in consequence to from 10s. to 10s. 3d. per lb. for fair manufacturing quality, a further rise being expected." This announcement indicates a rise in Smyrna of fully 1s. per lb. on the week, and however slow the London opium buyers

(taught by painful experience to place little reliance in news from Turkey) may be to follow the lead of the Smyrna market, it is more than probable that to some extent they will now be forced to do so. The crop which has just been harvested in the interior of Asia Minor was known to be below that of recent years in the matter of quantity, but in few quarters was it anticipated that it would be so small as it now appears likely to turn out. The dreaded hot southern winds that cause havoc about once a decade or so appear to have set in this year while the gathering was still proceeding. The effect of this hot wind is to stop the flow of the juice from the poppy, and there are a good many instances on record where a crop which promised well has been utterly ruined within a few days by this climatic change. A few weeks more may elapse before the truth with regard to the extent of the damage wrought on the present occasion becomes known; but in the meantime we have it on good authority that the opium-growers in the interior have instructed their Smyrna correspondents to raise the prices—in some instances even above the parity now obtainable in the Smyrna market. In the week ending on July 11 a fair business was reported in Smyrna, the total amounting to about seventy cases, of which only three were of the new crop. The prices realised ranged from the parity of 8s. 5d. to 9s. per lb., according to quality; and the chief buyers, as usual, were again the American agents. It would seem, in fact, that the principal buyers in the United States have confidence in the market, and, if that is so, they will no doubt purchase largely, and of necessity drive up the prices by each transaction. One of the best means of estimating the output of the crop is to keep an eye upon the arrivals of new opium at Smyrna and Constantinople. The statistics relating to these arrivals are kept with a fair amount of accuracy, and they show that on July 10 of this year only 222 cases had been received, compared with 652 at the same time of last year, although the last-named figure ought to be somewhat discounted by the fact that the 1895-crop was ready at least a week earlier than this year's. Letters from the growing districts would have it that four-fifths of the growing plants sown in the spring have perished on account of the sudden wave of heat. These spring-sowing have not yet come into bearing, and if the reports are true, it is therefore likely that there will practically be no second crop this year. The winter-sown plants, of which the juice has now been harvested, have suffered from the drying up of the exudation in the manner described.

If it were not for the supplies of morphia in second hand, which are believed to be fairly considerable, we should undoubtedly have seen a larger rise in opium-salts than that announced in our Trade-report; but, although there is every prospect that we are on the eve of a further rise in crude opium, we hardly anticipate that the opium-salts will follow the rise in the same proportion. Still, it is known that the majority of the morphia-manufacturers are anxious to raise their quotations as soon as they get the chance, and that, had it not been for one dissident among them, the advance in morphia, which was made some weeks ago, would have been more considerable than it actually was.

While on this subject of opium we would call attention to complaints that have reached us from several Smyrna correspondents with regard to the increasing practice of adulterating the drug in Smyrna. One of the largest opium-dealers in that city, we hear, has for a long time made it a practice to buy up all the opium pickings rejected by buyers of high-grade gum when making their purchases. The quality of this rejected opium varies; some of it is genuine, but poor in

appearance or yield; part of it, again, consists of a mostly spurious mixture. The average price paid for these rejections, it is said, is about 5s. per lb., and the average morphia yield about 5 per cent. Naturally this action on the part of a well-known merchant is looked upon askance by other traders; for it is more than suspected that the object is to mix this low-grade opium with higher-class quality and to palm it off on unsuspecting buyers, which may be done all the more readily in case there should be a serious and sustained rise in prices. One of the results, it is pointed out, is that the dealers in the growing districts, finding such a ready market for pickings, will be encouraged to practise adulteration on a larger scale than they usually do. In fact, it was recently found that a parcel of thirty cases of new opium contained no less than 25 per cent. of spurious pickings of this kind, and as adulteration of the sort has happily been rare in Smyrna for some years, its revival naturally causes much concern to conscientious dealers.

THE CHICAGO MEDAL.

Through the polite attention of the Liquor Carnis Company we have received the appended prints of the Chicago Exhibition medal, which is certainly not a remarkable



achievement of American art, especially considering the three years which the authorities of the Exhibition have taken to get it ready. Conscious, apparently, of the changes which time brings as years roll on, the awards are sent to

the exhibitors with the instructions on the address that in case the packet cannot be delivered because of the death of the addressee it is to be returned to Washington. The medal is a rather common-looking production, and represents Columbus—if we interpret the design correctly—as a blind man wading across the Atlantic and groping after land in the Western hemisphere, though why he carries a scythe, or why a policeman is watching him, is not quite clear. We learn from the inscription on the reverse of the medal that Christopher made his great discovery in 1492-3.

PROPOSED AMENDMENT OF THE ADULTERATION ACTS.

The full report of the Select Committee on Food-products Adulteration was published on the day we had to go to press with this number, and we therefore postpone our comments on it. It is a volume of ninety pages, and the working of the Acts is dealt with in considerable detail. The report can be obtained from Messrs. Eyre & Spottiswoode, New Street Square, London, E.C., for 9d., plus 2½d. for postage.

RESEARCH GIVES WAY.

Since the change in the Minor examination which imposed a full day's practical work in chemistry and pharmacy upon all candidates, the Pharmaceutical Society have experienced much difficulty in accommodating candidates at Bloomsbury Square. The practical pharmacy laboratory was enlarged, and, with much doubting as to the wisdom of the procedure, a large number of the candidates have been examined in chemistry in the School of Pharmacy laboratories. It is now proposed to discontinue this practice by securing the whole of the Galen Place premises for examination purposes. There is good accommodation in the research laboratories, and with some slight structural alterations they would be admirably suited for examinations. Professor Attfield's private laboratory will be available for research; but we hope the Council will not abandon research at Galen Place. The rooms will only be required for about twenty days four times a year, and it would be a pity that they should lie idle all the rest of the time if useful research can be done in them. We cannot imagine that the Council will, so few years after the foundation of a research laboratory which involved them in an expenditure of 12,000l., do anything savouring of abandonment of the scheme, especially since they have a competent man like Dr. Collie to take it up, as, we understand, he is willing to do.

DR. KIMURA ASSUMES THE EDITORSHIP.

The *Sei-i-Quai* is a Japanese journal which is printed both in the vernacular and in English. The editorship of the English section of the journal has recently been assumed by Dr. Kimura, who makes an announcement to that effect in the paper, and then starts off by describing Dr. Kitasato's experiments with the bacillus of the Chinese plague in this way:—

The pest-bacillus is of rod-shape whose both extremities stain deeper than the middle part with anilin pigment, and has a capsule; its shape resembles the bacillus of chicken cholera. The pest-bacillus is differ from all other bacilli of infectious diseases, being inoculated by three channels—by lungs, stomach and by hypodermic injection. In the blood of the patient in convalescent state, after decline of fever, abundant of the pest-bacilli still present; and therefore, immunity to the disease can easily be secured, by a certain method which Dr. K. is investigating at present.

Dr. Kimura's assumption of the editorship of the English section of the paper reminds us of the old *Punch* joke about the amateur actor who asked a friend, "How did you like my assumption of the part of Hamlet?" "My dear fellow," came the reply, "I assure you it was the greatest piece of assumption I ever saw in my life."

The British Pharmaceutical Conference, 1896.



LIVERPOOL.

CHIEF of our seaports, most cosmopolitan of our provincial towns, and second city— No; we dare not venture on the assertion. We shall have to say the same thing next year of Glasgow, and it is better that the delegates from the Clyde and the Mersey should fight out the controversy between them before we take a side.

When the Glasgow men come to proffer their invitation of

dispute once begins Mr. Martindale will have no alternative but to call in the police and the ambulances.

The history of Liverpool is a peculiarly easy one to write; it has none to speak of. The Mersey is mentioned in a deed of King Ethelred's, sixty years before the Norman Conquest, as the northern boundary of the kingdom of Mercia; and there was once a castle in the neighbourhood which was believed to have been built by Roger of Poitiers, to whom William the Conqueror chucked the whole of Lancashire as an unconsidered trifle. The first authentic mention of the place is in a charter granted by Henry II, enacting that "the whole estuary of the Mersey shall be for ever a port of the sea, with all liberties to a port of the sea belonging; and that place which the men of Lyrpul, called Lytherpul, near to Toxteth, from each side of the water may come and return with their ships and merchandise freely and without obstruction." Obedient to this royal authority, the Mersey has remained a port of the sea ever since, for the charter has never been revoked. The inhabitants of "Her Majesty's poor decayed town of Liverpoole" presented a petition to Queen Elizabeth



ST. GEORGE'S HALL, LIVERPOOL.

the Conference to their city at the close of the coming meeting they will be no more able to avoid the assertion that they represent the second city of the Empire than they will be able to lay aside their accent. Liverpool is generally so confident of the righteousness of its own claim to the designation that it seldom condescends to argue the matter; but in face of a direct challenge, and with, perhaps, their noble Mayor looking on, its pharmaceutical sons can hardly let the declaration pass without a protest, and when the

for some relief; and when Charles I. imposed the famous ship-money tax on the nation he only got 15*l.* from his loving subjects at Liverpool. Its insignificance at that period is further proved by the circumstance that it does not seem to have been damaged or destroyed by Oliver Cromwell personally, as were most other towns of any standing in the three kingdoms. Cromwell appears to have left Liverpool to be dealt with by his lieutenants. In the last year of the seventeenth century Liverpool boasted of 5,714

inhabitants and one church (St. Nicholas), the one which still looks over the landing-stage. And as that church never accommodated 5,714 persons, we may assume that the Clays,

reside outside the city proper. If Birkenhead, Bootle, and all the other outlying townships, both on the Lancashire and Cheshire side of the Mersey, were included, the popula-



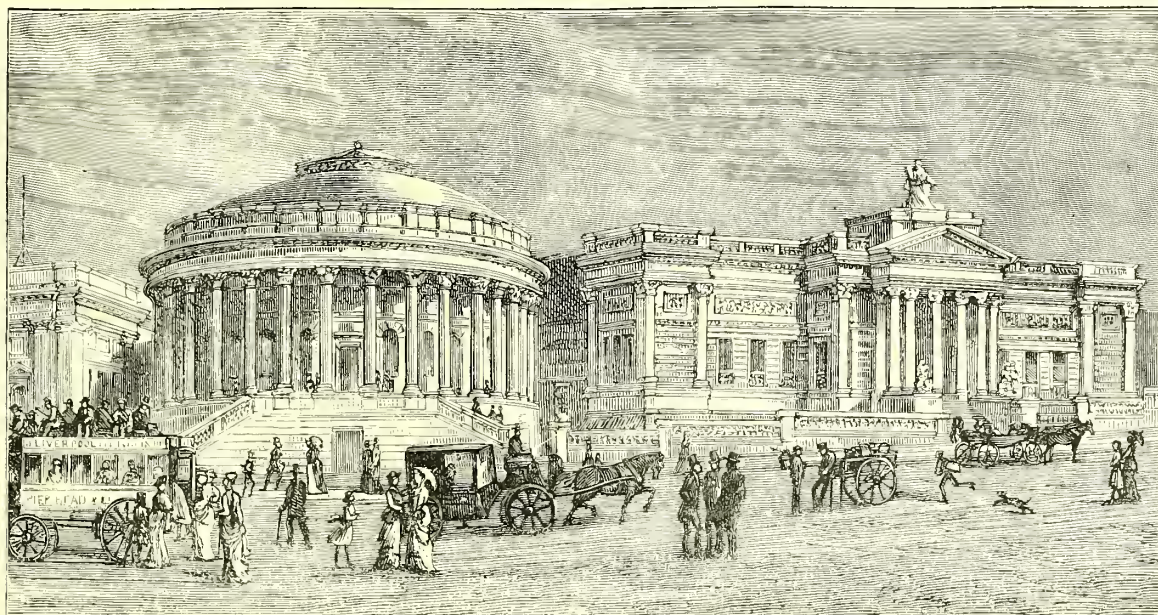
THE TOWN HALL, LIVERPOOL.

and Abrahams, and Evanses, and Symeses of that day were not all habitual churchgoers.

By the end of the eighteenth century the population of Liverpool had increased to 77,000, and in 1891 it was returned at 517,951, a figure which was 35,000 fewer than the one returned as the population in 1881. Liverpool was,

tion of what is, indeed, one vast associated city, would be close upon, if not more than, a million.

The name of Liverpool is popularly attributed to the "liver," the interesting, but unidentified, bird which figures on the city arms, and which, it is assumed, once built its nest on the shores of the pool of the Mersey. Other etymo-



BROWN'S LIBRARY, PICTON READING ROOM, AND WALKER ART GALLERY

we believe, the only large town in Great Britain which marked a decline—due, it is believed, not to the Manchester Ship Canal, but to the largely-extended opportunities given by railways and boats to all classes of the population to

logists have traced the name to the liverworts or hepaticæ which are supposed to have grown in the neighbourhood. We may mention, in passing, that the word "liver" itself has been learnedly traced to the Latin *jejur* and the Greek

hepar, which shows what an adaptable science philology is. The records seem to show that the name was originally Litherpul, lower or lazy—i.e., stagnant, pool—a derivation which is perhaps too simple and probable for the etymologists.

The slave-trade first, and the cotton-trade afterwards, were the branches of commerce on which the prosperity of Liverpool has been based. The slave-trade was abolished in 1806, and the first bale of cotton came to Liverpool in 1785. Last year over 23,000 ships paid harbour-dues to the port.

There are many fine buildings and points of interest in and about Liverpool; but there is no attraction at all equal to its noble river and magnificent docks. An overhead electric railway runs the whole length of the docks—some seven miles—and the landing-stage and the ferry-boats give abundant opportunities for viewing the busy life of the port. The railway which connects the centre of Liverpool with the Cheshire side by means of the Mersey Tunnel, the Ship Canal, the docks, the overhead railway, and the landing-stages are all notable feats of engineering.

The Walker Art Gallery, where the reception of the Conference is to take place, is a handsome building which was presented to the city by Mr. (afterwards Sir) Andrew Barclay Walker, a wealthy brewer, in commemoration of his mayoralty in 1873. It contains some very fine paintings and works of sculpture. The total cost of erection and fitting amounted to more than 30,000*l.* This building is in communication with the Picton Reading-room and the William Brown Free Library, and this range of buildings



UNIVERSITY COLLEGE.

faces the beautifully-designed St. George's Hall, which was finished in 1854, and cost, including the furnishing, 330,000*l.* It was built from the designs of Mr. Harvey Lonsdale Elmes, a young architect of great promise, who did not live to see its completion. Here are held the assizes, concerts, and some of the principal public functions. The Town Hall faces Castle Street, and behind it are the Exchange flags and buildings.

University College, where the sessions of the Conference are to be held, is one of Liverpool's more recent acquisitions. With Owens College, Manchester, and the Yorkshire College of Science at Leeds, it forms the Victoria University.

University College embraces within the four streets which form its limits as complete a collection of buildings for educational purposes as can be found in the North of England. Nearly twenty years ago a great want was felt of provisions for higher education. In 1878 a town's meet-

ing passed a resolution indicating the desirability of founding in Liverpool a college to provide such instruction in all the branches of a liberal education, such as would enable residents in the neighbourhood to qualify for degrees in arts, science, &c., at any university granting degrees to non-resident students. An appeal was made and money poured in. Professorships and lectureships were founded; buildings, formerly part of the Royal Infirmary, were acquired, together with some acres of land, and the necessary alterations were completed in 1882. Meanwhile, University College, Liverpool, had received its Charter of Incorporation on October 18, 1881. Dr. Rendall was appointed principal, and in due course appointments were made to the chairs of physics, natural history, chemistry, and other subjects. A medical faculty was formed, consisting of six professors, subsequently (1888) increased to eight; and new chemical laboratories were commenced upon a site granted by the Municipality. On November 5, 1884, University College became part of Victoria University, and many scholarships were founded. In 1886 Sir A. B. Walker gave 23,000*l.* to found the engineering laboratories, and a chair of engineering was endowed by Mr. Thomas Harrison. The noble Victoria buildings, where students in the arts find a suitable working-place, and the whole block having the Jubilee Clock Tower as a central feature was begun in 1889. Mr. Henry Tate added the library, which bears his name, at a cost of 20,000*l.* Upon the occupation of the Victoria Buildings in 1892 the old College buildings were re-adapted for the teaching of physics, biology, and botany; and in 1894, after a service of eight years as lecturer, Mr. R. J. Harvey Gibson, M.A., was elected to the Chair of Botany founded by Mr. Holbrook Gaskell and others. The most recent addition to the ever-increasing educational work of the College, and one of peculiar interest to pharmacists, is the School of Pharmacy. In this school complete courses of instruction will be given in all the subjects required for the examinations of the Pharmaceutical Society. The first session will commence in October next.

The Adelphi Hotel, where the Conference is to have its headquarters, is one of the famous hotels of the country. After several generations of unique reputation as the place



ADELPHI HOTEL.

for the highest class of Americans to stay at on their arrival in England, it came into the possession of the Midland Railway Company about six years ago. Over 60,000*l.* was spent on it by the Company to bring it thoroughly up to date and comfortable in all respects. Although not close to the Midland Station travellers by that railway will find Adelphi porters waiting for them on arrival.

Shipping is, of course, the great Liverpool industry, but the district of which it is a centre is one of the principal homes of the alkali manufacture, while close by, on the

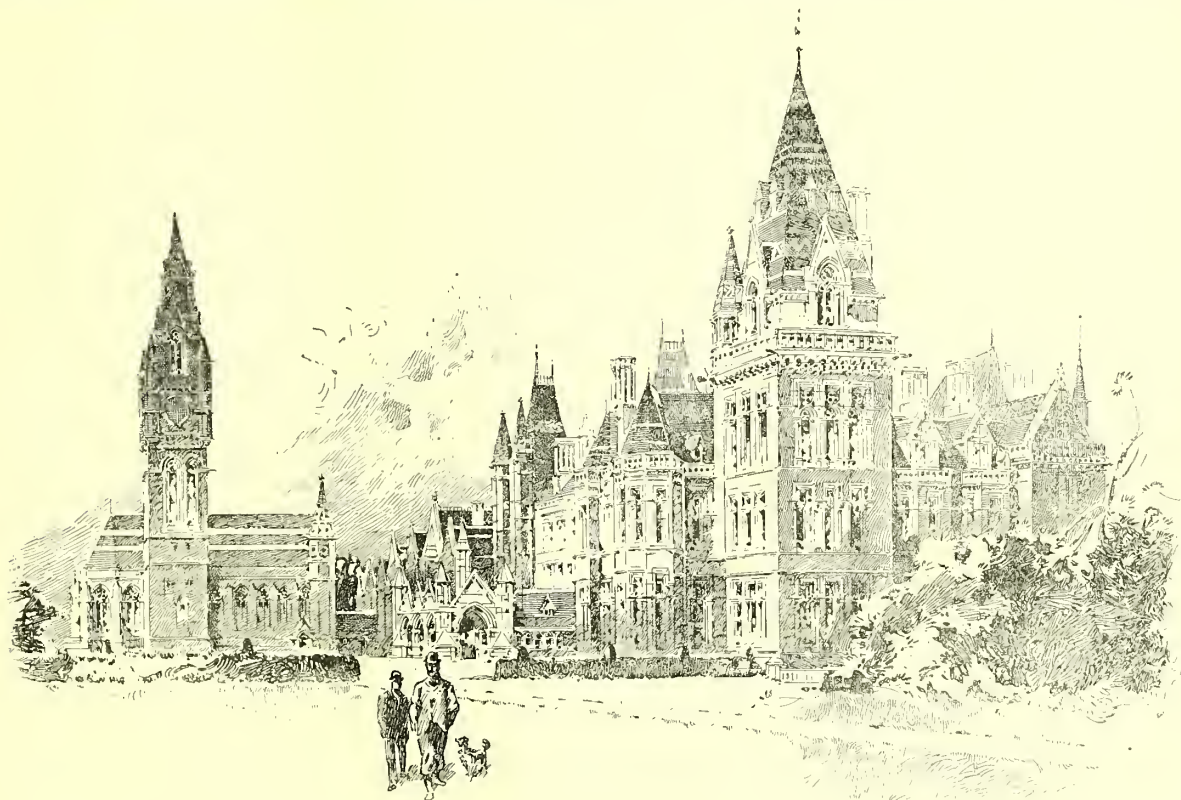
Cheshire side of the river, is Port Sunlight, where Messrs. Lever Brothers have built a town for the production of their



HOME OF EVERTON TOFFEE.

famous soap. Cope's, Hignett's, Ogden's, and other large tobacco-factories are also established in Liverpool, while

since the Commonwealth, when the art was first introduced into England. The Prescott workers only made certain parts of watches, maintaining a sort of compact with Coventry, Birmingham, and London that other parts should be left to them. The manufacture of an English watch was therefore a very complicated and lengthy process, and when, after the Civil War, America took up the manufacture on a business-like scale the English trade seemed threatened with annihilation. About ten years ago the young representative of an old Prescott watchmaking family, Mr. T. P. Hewitt, set to work to organise an amalgamation of the Prescott interests with a view of ultimately establishing a factory in that town, where every part of a watch, including the case, should be manufactured. The works which the Conference is to visit on Wednesday next were only opened in 1890, but the foresight of the promoter has been abundantly justified and the company is meeting with an astonishing degree of success. The factory as at present worked provides accommodation for 1,500 workpeople, and turns out 100,000 watches a year. It has done a good deal, and will do more, to stem the tide of American competition,



EATON: THE WEST FRONT AND CHAPEL.

Mr. Beecham puts up 6,000,000 boxes of his pills per annum at St. Helens, which is within half-an-hour's railway ride. The local committee, in arranging their trips, have no doubt wisely passed over the attractions presented by these various works, regarding them, perhaps, as more or less closely associated with the daily work of chemists and druggists. For the industrial spectacle on Wednesday evening they have chosen the Lancashire Watch Company's factory at Prescott for a visit. Prescott is a town set on a hill, about eight miles from Liverpool and four miles from St. Helens. It has been noted for watch manufacturing

and will help to bring back and retain for England an industry in which she has always been pre-eminent for workmanship, and in which only organisation was needed to give the commercial results which she deserved.

Prescott has a special title to pharmaceutical fame. In a preliminary chapter recording the history of the place, in a handsome work which the Watch Company have issued, we find the following note:—"In the early part of this century Mr. George Harker had a chemist's shop in the Market Place, and Mr. Dakin was serving his apprenticeship with a Mr. Threlfall, chemist, in the Fall Lane. Subsequently Mr.

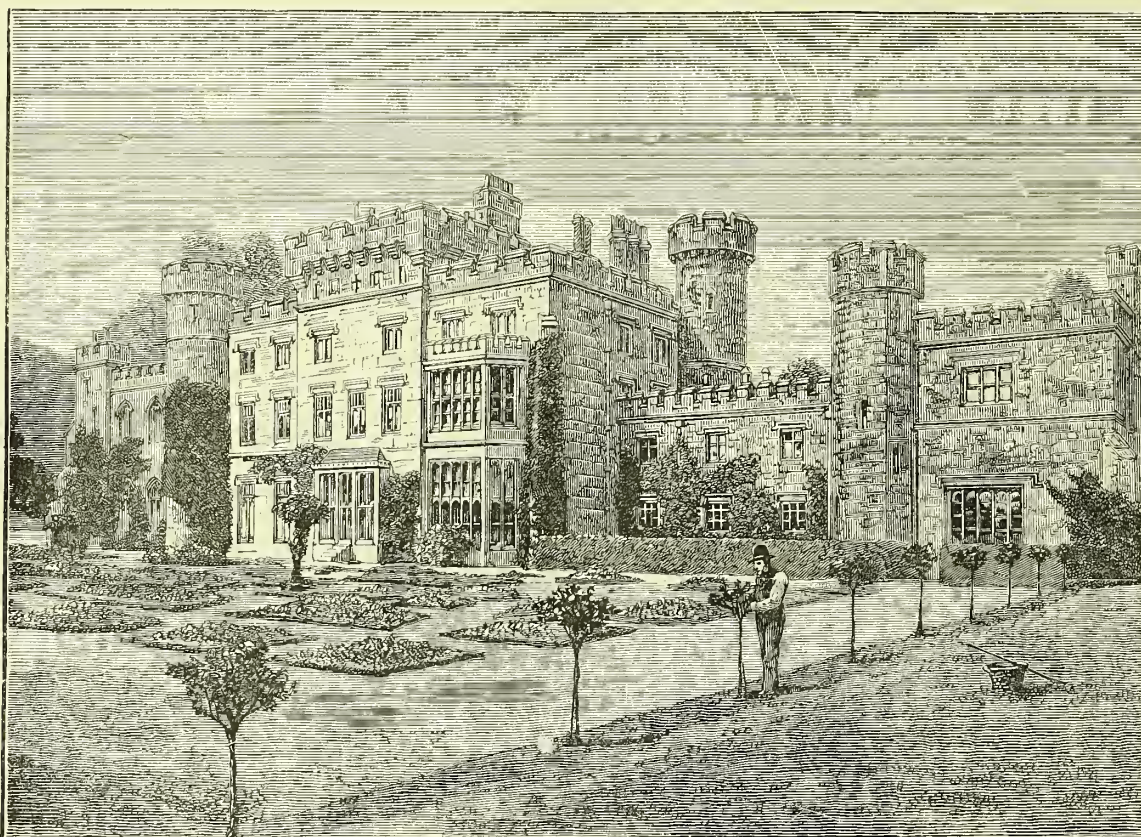
Harker went to Australia and became Chief Secretary of State for New South Wales, and Mr. Dakin went to London and became Lord Mayor of the world's metropolis."

CHESTER.

whither the members of the Conference will be first conducted on the excursion day (Thursday next), offers as complete a contrast to Liverpool as can well be conceived. Chester has been a famous city right through the Christian era at all events. It was one of the chief of the Roman camps, settlements, or stations, and is believed to have been a noted British centre before the arrival of Julius Cæsar. The city has a quaint, mediæval appearance which fascinates visitors from the more modern world. But it must not be supposed that there is anything Roman left standing, unless

fail to attract their respective votaries; but we must leave the ordinary guide-books to give details of these, as well as of the cats, the cheeses, and the races for which the city is likewise famous.

Eaton Hall and Hawarden Castle are also to be visited from Chester. The former, which is a magnificent palace, the property of the Duke of Westminster, is frequently open to visitors on payment of a fee of one shilling each, and the proceeds, amounting to about 500*l.* a year, are given to various local charities. The architecture and decorations of this palace, one of the stateliest homes of England, and the lovely gardens which surround it will convey some idea to chemists and druggists of what it must be to be a duke. The most striking room in the mansion is the Library, 92 feet long by 32 feet wide, with some 12,000 volumes, and adorned with fine, famous, historical paintings by Benjamin West.



HAWARDEN CASTLE.

it may be underground. Even the wall which was once venerated as a genuine Roman *vallum* is now believed by the most competent antiquarians to date back no further than the period of the Commonwealth. Roman remains have been discovered, of course, in abundance, and most of these are to be found in the Grosvenor Museum. There is a Roman bath, too, in Bridge Street.

The most characteristic feature of Chester is the "Rows." Nobody knows how they originated. Bold historians, of course, trace the idea to the Romans. They are sheltered corridors, occupying the place where the upstairs front parlours ought to be, and they are the favourite shopping-promenades of the city. Eastgate Row and Bridge Street Row are the most popular ones.

The Cathedral and the Dee are other objects which cannot

representing Cromwell Dissolving the Long Parliament, Charles II. Landing at Dover, the Battle of the Boyne, the Battle of La Hogue, and the Death of General Wolfe at Quebec. The Grand Corridor contains some other noted pictures and statuary, and the decorations of the Saloon and Ante Drawing Room by H. Stacey Marks are also worth attention.

Hawarden, the Shrine of the Radicals, needs no description here. The modern castle and the family that lives there are the attractions; and if the venerable head of the house should be willing to show himself to his pharmaceutical guests, he may rely upon a respectful but enthusiastic cheer from Conservative and Liberal pharmacists alike, many of whom may know of Mr. Gladstone's great respect for the profession of which they are the allies.



BRIDGE STREET CHESTER.



EASTGATE, CHESTER.

ACTIVE MEMBERS OF THE LOCAL COMMITTEE,

whom Conferees will meet next week.



MR. A. C. ABRAHAM, F.I.C.

MR. JOHN BAIN
(Local Treasurer).

MR. ANTHONY S. BUCK.

MR. MICHAEL CONROY
(President of the Liverpool Chemists' Association, and Vice-President of the B.P.C.).

MR. H. O. DUTTON.



MR. W. PATTISON EVANS.

MR. JOHN SMITH
(Ex-President of the Liverpool Chemists' Association).DR. CHARLES SYMES
(Chairman of the Local Committee).MR. THEO. WARDLEWORTH
(Hon. Local Secretary).

PHARMACY IN LIVERPOOL.

THE venerable and always lively Dr. J. B. Nevins, the *doyen* of the medical profession in Liverpool, has been kind enough to write for us the following sketch of Liverpool Pharmacy as he recollects it fifty or sixty years ago:—

DR. NEVINS'S RECOLLECTIONS OF BRITISH PHARMACY.

Just before I knew the town personally a number of members of the medical profession desired to have (as they said) purer drugs and more refined pharmacy than Liverpool or the neighbourhood at that time possessed; so they formed a company and built the Apothecaries' Hall in Colquett Street, for the joint purpose of manufacturing chemicals and first-class pharmaceutical preparations for the supply both of the town and the surrounding counties, and also for the retail-dispensing prescriptions in the most perfect manner, and containing only the purest materials.

At that time the iodides of mercury and of lead and the like were new to the profession, and also the scale preparations of iron; and their beauty of appearance and their reputed therapeutic powers speedily made them the fashion, and everything was to be cured by them. Iodine, as a newly-discovered medicinal agent, was only prepared from kelp, sponge being still in use, and its manufacture (so to speak) was confined to two or three manufacturing chemists, if there were even so many. Its price was 7s. 6d. or 10s. an ounce, and the process for obtaining it was kept as secret as possible. Iodide of potassium was struggling into favour as being less nauseous, and probably as useful medicinally as iodine itself, but its beautiful cubical crystals were rarely seen. Bromine, except as a chemical curiosity, was scarcely known; and while iodine in some form or other was at that time the last resource of the physician who had tried "everything" for every known disease, and also for the diseases so obscure as to be practically unknown ones, bromide of potassium was the last new thing for uterine affections, and the question was asked (with bated breath) when its employment was suggested by some great consultant, "Would it be safe to give as much as 5 or 6 gr. for a dose, or should we begin with 2 or 3 gr. only?"

Creosote had fallen from the half-guinea an ounce with which it commenced its career of being a cure-all about six or eight years previously, but it was still in repute, while carbolic acid was an unknown name and unknown practically as a substance. Magnesia, in a form in which it could be readily mixed with water, was almost confined to Howard's celebrated "heavy magnesia," the process for the manufacture of which was most jealously concealed, and precipitated sulphur, free from the sulphate of lime present in *lac sulphuris*, was very far from being popular either in the profession (which at that time almost universally dispensed its own medicines) or with the public, who did not like the price, and thought it no better than the old-fashioned "*lac*" or "*milk of sulphur*."

Morphia was barely known, and atropine applied to the eye itself had not at that time superseded the application of extract of belladonna thickly smeared over temples, eyelids, and cheeks for hours previously, to dilate the pupil, while the soluble sulphate was so unknown that for years afterwards it was doubtful whether a prescription ordering the sulphate for local application to the eyes would really be dispensed with the sulphate, or with the alkaloid itself dissolved in rectified spirit. Chloroform was unknown, and mustard-leaves and ready-spread pitch-plasters, and the like, had not been superseded by "Alcock's porous" or by the heart-shaped plaster which began about that time to adorn the shop-windows of chemists and druggists in the form of pictures of the most healthy, vigorous, and good-looking young men applying these plasters over the region of the heart; though for what purpose it was being placed above that sensitive organ the picture did not explain.

Cod-liver oil has been for above a century a specific for rheumatism in the dispensary at Sheffield, but in its darkest and most offensive condition, and the pints and quarts of it now exhibited in druggists' shops in a degree of transparency and syrupy brilliance likely to be tempting to the youthful

palate if taken surreptitiously, was an article then unknown.

With pharmacy in this condition the Liverpool Apothecaries' Hall was originated, and in order that it might prove a success its founder spared neither pains nor expense to make it perfect. The late Mr. Clay was a moving spirit in its organisation, and in devising the machinery by which its chemical and pharmaceutical preparations were to be manufactured. In order to ensure the best attainable chemical skill Dr. Brett, who was the most noted of the rising generation of young scientific chemists at Guy's Hospital, was engaged as the scientific manager of the chemical processes, and his guarantee of the chemical purity of every article manufactured there, and of the strength and purity of every pharmaceutical preparation, tincture, decoction, or pill, &c.,



THE CORRIDOR, EATON HALL.

sent out from it, was so sterling and conscientious that the preparations issued wholesale to the chemists and druggists throughout the north-west of England and North Wales were universally and deservedly accepted.

In order to guarantee a similar high character for the dispensing department of the business, it was placed under the charge of the late Mr. John Abraham, and the reputation which he gained for it has never been lost, though he transferred his personal superintendence of it, after some years, to the business which he commenced in conjunction with Mr. Clay in Bold Street, and no Liverpool person requires to be told of the character that the name of Clay & Abraham still possesses and richly deserves.

But leaving the wholesale manufacturing pharmaceutical industry which practically originated at that time in Liverpool, and is still carried on to such a large extent, a few of the dispensing druggists of that day stand out prominently and furnish illustrations of some of the social features of the town which may not be wholly without interest. And first of these may be taken the late Mr. McGuffie,

because he was one of the most noted of his day, and his shop was close to the Town Hall. The immediate connection between the two facts may not be at first sight apparent, but he was a man of good presence and exceptionally genial manner, and the custom of the Town Hall in that day differed widely from the present *régime*. At that time dinners were the characteristic of that great municipal ornament of that city, and they were held once a week, not to say twice a week for the welfare of the City Fathers. There was a dinner to inaugurate the new Mayoralty, to which every member of the Corporation was invited, of course. Then there was another dinner to the Dock Board, at which the most prominent aldermen and town councillors were again present as members of that important body. Next the magistrates' dinner, to which all the City Fathers who happened to be J.P.'s were again invited, and of course the Judges of Assize were invited by the Mayor and the law-abiding members of the Corporation ("No Irish need apply") were again his guests. Then there was the Cotton Brokers' Association and other great trade associations, most of whose dignified members were again present, and there was of course a Borough election, or a visit from the two M.P.'s of that date, and by chance there might be a royal duke quartered with his troops in the barracks at Everton, now converted into St. Edmond's College, and after some other dinners to the heads of charities, &c., there was the farewell dinner for the Mayor to say his good-bye to the Corporation, and receive great praises for his unfailing ability and urbanity and hospitality. At all these the Corporation were again present, and the Mayor's assimilative organs and theirs then got a short period of rest. The natural result of all the foregoing entertainments was some impairment of digestion, and now Mr. McGuffie's connection with the Town Hall begins to become more apparent. He was a genial man and knew them all, and his shop was close at hand, and the day after a mayoral banquet he knew everybody who had been there by a call and a request next morning: "Now, Mr. McGuffie, the usual thing," which meant 6 gr. of calomel and the black draught, under the influence of which the world became brighter, the eyes clearer, and the digestive and social faculties put in order for the next entertainment. Mr. McGuffie's official opinion of the process was that it was an immense relief each time to the sufferer, and was therefore doing good to his neighbours; and his private opinion was, so far as could be gathered from such a discreet citizen, "What's the odds, so you're happy?" But he has gone from us. "Requiescat in pace," we may well say from inmost our hearts, after the peace that he has conferred upon so many City Fathers. "At Homes," with tea and maccaroons, have now happily supplanted the dinners and the subsequent visit to the eminent chemist and druggist of past times. Another of the Liverpool druggists of that date who was also a character in his time was Mr. Ellison. He was easily recognised in the street by the bouquet in his button-hole, which was more beautiful than himself; for though he was not strikingly handsome, his flowers were, and at that time a flower-vendor was unknown in Liverpool, and flowers themselves were very rare in a man's coat. His shop, also, was almost like a conservatory from the number and beauty of its contents. His place of business was exactly opposite the Athenæum, at that time the most noted newsroom and library in the town, from which possibly he acquired some of his stores of information, for he was a man of very varied knowledge, the chief of which was the gossip of the day, and the character and etceteras of everybody in town. He knew all the members of the learned institution, and if anyone of them could not there ascertain the latest intelligence about A., B., or C., he had only to go across the street and ask for a bottle of Jockey Club, or Frangipanni, or Kiss-me-Quick, and he would come out supplied with the delicate scents for his wife's toilet, and the missing information for his after-dinner-table friends. He was, however, in addition, a really well-informed, well-read man, and was not the only one of his name who contributed to the intellectual life of Liverpool.

This sketch of Liverpool pharmacy and pharmacists began with the name of Mr. Clay, and with it it may well conclude. His rotund figure and beaming face will be remembered by some still living, and his speciality (in addition to his scientific pharmaceutical knowledge) is memorialised by one

of the most popular institutions in the town—the Philharmonic Hall. He was a devoted lover of music, and was one of the founders of the Philharmonic Association, in which he took an active interest throughout life. His family relationship with the Inmans, with the junior members of whom "Uncle Robert" was a genuine and always welcome favourite, brought him into public in a somewhat different aspect from the others we have recorded; but of all of them we may say that they were men of worth, and we may now go further and find much worse.

In comparing the pharmacy of Liverpool of the present day with that described by Dr. Nevins, we find that the Apothecaries' Hall to which Dr. Nevins refers is still in existence, and does much to justify the reasons for which it was established.

Messrs. Clay, Dod & Co. represent a firm which was established in 1813 by Mr. Robert Clay, and was carried on for many years under the style of Messrs. Robert Clay & Co., the front portion of the premises being (as was the custom largely in those days) his private residence, some outbuildings in the rear being used for the business. Mr. Clay was afterwards joined by Mr. Thomas Dod and Henry Case, both being apprentices of the Liverpool Apothecaries' Company. The name of the firm was changed to Clay, Dod & Case, until in 1894 the business reverted again to the style of Clay, Dod & Co.

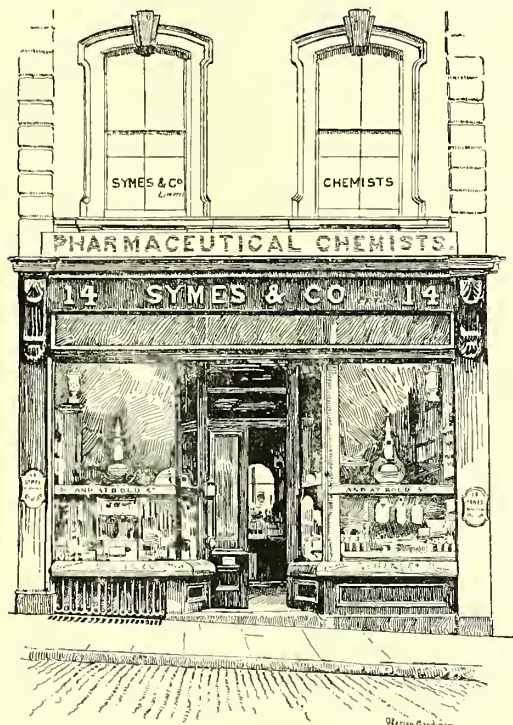
The firm of Clay & Abraham was established in 1845 in its present situation, 87 Bold Street, Liverpool. The senior partner, Mr. Clay, had previously been in trade for many years, and his business was really a descendant of much older ones. He never, however, took any active part in the business of Clay & Abraham from its foundation, giving his whole attention to a wholesale concern with which he was also connected. It was, therefore, for many years conducted solely by the late Mr. John Abraham, who was at one time an examiner of the Pharmaceutical Society, and subsequently for many years upon the Council of that body. It has since his death been carried on by the present partners, Messrs. T. Fell Abraham and A. C. Abraham, F.C.S., F.I.C. In 1870 the firm acquired by purchase the business carried on by the late Robert Lathbury and his father for nearly one hundred years in Castle Street, and have carried on this branch



since that date. The premises in Bold Street consist of a shop, 72 feet long and 21 feet wide, narrowing towards the back to 16 feet, the front portion being occupied with the

retail department, while the back is allotted to dispensing, &c.; in the centre is situated the office.

The businesses of Messrs. Symes & Co. (Limited) are at 58 Bold Street and 14 Hardman Street. Mr. Chas. Symes, Ph.D., the Chairman of the local committee of the Conference, recently turned his business into a limited liability company for family reasons, and the business is now carried on as Charles Symes & Co. (Limited). Dr. Symes has



earned for himself the reputation of an exact and enterprising scientific pharmacist. His opinion in regard to pharmaceutical matters is highly valued by the medical men of the town, and he enjoys the confidence of his fellow-pharmacists throughout the district. He is constantly contributing valuable items of information on pharmacy, and in connection with the coming Conference has manifested the greatest energy.

Messrs. Robert Sumner & Co., wholesale druggists, were established in 1844 by the late Mr. Robert Sumner, who carried on the business for about thirty years, and was succeeded by his sons Edward and Robert, who afterwards took into partnership Mr. A. Major Hugill, second son of Mr. Hugill, of Meggesons & Co. Mr. Hugill was apprenticed to Mr. Smeeton, of Leeds, and under this gentleman obtained his knowledge of the retail business and acquired the Major qualification. Upon the retirement of Messrs. Edward and Robert Sumner, Mr. J. Overton joined the firm, and the business has since been carried on by these two gentlemen. Mr. Overton was apprenticed to Messrs. Ferris, of Bristol.

Of Messrs. Evans, Sons & Co. it is hardly necessary to say much; they are too well known to the trade in the North of England, and, indeed, all over the pharmaceutical world. Established in 1837, they would now be reckoned among the half-dozen largest wholesale drug-firms in the world. Their warehouses and laboratories, replete with modern machinery, cover acres of ground in the busiest part of the city. In addition to those engaged in pharmacy proper and its immediate adjuncts, such as shop-fitting, &c., the firm find employment for many skilled outside handicrafts, such as joiners and packing-case makers, basket-

makers, tinsmiths, engineers, coopers, printers, and others. The great organisation is under the control of Mr. John James Evans, Mr. Ed. Evans, jun., and Mr. W. P. Evans, the last-named being a member of the local executive committee. Mr. Alf. Bickerton Evans controls the business of Messrs. Evans & Sons (Limited) in Montreal. Mr. Edward Evans, sen., the respected principal of the house, has just completed his eightieth year, and lives in retirement at Bromwylla, and the fact that he is now enjoying excellent health, after recently passing through a critical illness, is a source of great satisfaction to all who know him.

Liverpool pharmacists have also the advantage of having among them such an excellent druggists' sundries house as that of Messrs. Ayrton & Saunders, and a patent-medicine warehouse run by Mr. John Thompson. Messrs. Ayrton & Saunders are noted for their production of cardboard and other kinds of fancy boxes, the manufacture of which they are always pleased to show to their customers.

In sight of the masts and rigging and within smell of the tar and oakum stands the shop of Messrs. W. & J. Fergusson, at 5 and 6 the Strand, Liverpool. The firm was established about the year 1824 by a doctor who had spent some years in the West Indies, and who, on commencing business as an apothecary, acquired some reputation as an expert in children's diseases. The business has prospered, and probably because of its proximity to the shipping a very large trade is done in medicine-chests. Mr. John Jones is the present proprietor. He was for twenty-seven years in the service of Messrs. Fergusson, and on the death of the last surviving partner of the firm he was appointed manager on behalf of the legatees. In 1892 the business was transferred to him personally, and he now carries it on for his own account with gratifying success.

J. H. & S. Johnson were established in 1802, and upon the death of Mr. Samuel Johnson, the sole surviving partner of the old firm of J. H. & S. Johnson, the business was in 1882 taken over by the present proprietors—viz., Mr. Samuel Hearon Johnson and Mr. Samuel Wright Lee, who had been the manager under Messrs. Johnson since the year 1858. The premises, which are situated in Whitechapel and Church Street, have been recently rebuilt in order to meet the demands of the growing business which has now been in existence nearly 100 years.

The business of Messrs. McGuffie & Co., Castle Street, to which Dr. Nevins alludes, was established in 1793, and is probably, therefore, the oldest in the city. The business is still in possession of the family of the original founder, and shows increasing vigour and strength as years roll by.

The business of Mr. J. M. Buck, which was carried on for many years in Upper Parliament Street, has been handed over to his son, Mr. Anthony S. Buck, who was for many years one of the secretaries of the Liverpool Chemists' Association, and is one of the local executive of the Conference.

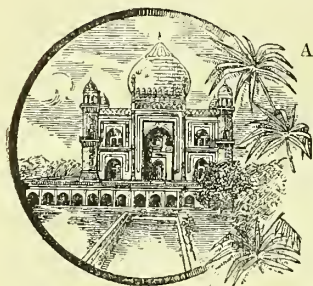
The shop of Mr. John Bain, the local treasurer, stands in a commanding position in the Quadrant, he having taken over the business established by Mr. T. Martin some fifty years ago. Mr. Bain received his education in Edinburgh, and is a native of Perthshire. This is not Mr. Bain's only venture, as he has branches at Blessington Road, Anfield, and at Elm Bank, Walton, both of which he carries on with characteristic energy and success.

The business of Messrs. Budden & Co. was established in the year 1841, and the various branches in the city are carried on with enterprise by the descendants of the founder.

Messrs. Boots, the cash chemists, have lately made a bold bid for Liverpool favour. They have already secured two shops, and announce their intention of extending their trade still further.

The Royal Botanic Gardens, Calcutta.

By WM. MAIR.



CALCUTTA'S Botanic Garden would gladden the heart of Examiner-Professor Patrick Geddes, foremost in the Renaissance of Botany, the growing school of bionomics or plant-life study, "Pflanzenleben," as they call it in the botanical atmosphere of Strasburg.

The "mercurial professor"—to quote an apt epithet which the versatile Zangwill lately applied to the founder of the newer Renaissance of Celtic culture—would find that for once the

1848 "nothing was to be seen of its former beauty and grandeur but a few noble trees or graceful palms rearing their heads over a low ragged jungle, or spreading their broad leaves or naked limbs over the forlorn hope of a botanical garden, that consisted of open clay beds, disposed into concentric circles, and baking into brick under the fervid heat of a Bengal sun." The general scheme of the garden has always been economic as much as purely botanical and ornamental, but in its present highly efficient condition, to which it has been brought by its present superintendent, Dr. George King, C.I.E., F.R.S., although only a suggestion of what it will become, it is one of the brightest spots in the East.

The garden is quite modern. It was founded over a hundred years ago by the Honourable John Company, but the cyclones of 1864 and 1867 made a clean sweep of everything in it except the great banyan tree, to be described hereafter, some sacred peepuls, and a few mahogany trees. It is 272 acres in extent, just about as large as Kew now is, and has exactly a mile of frontage to the river Hooghly. It is four miles out of town, and is a favourite rendezvous with the people of the "City of Palaces"—which are mostly stucco ones, by the way—on the numerous holidays bestowed by the



THE BANYAN TREE.

canons of taste in gardening he admires so ill, that find expression in crewel-work patterns and in schemes of colour that might as effectually be wrought out by the judicious use of pots of paint in primary colours, had been quite departed from. There are picturesque groups of closely-allied families of plants, clumps of bamboos and other genera of tropical monocotyledons, mostly evergreens of vivid hue; green lawns interspersed with sheets of ornamental water, gorgeous with *Victoria regia* or the white-flowered Padma water-lily (*Nelumbium speciosum*) beloved of the gods; splendid avenues of palms, "their tilted heads like draggled plumes against the sky"; and stately Indian trees and elegant shrubs affording necessary shade, in a land where it is summer every day, for more delicate members of the great floral community. There are also pretty borders of annuals which blossom gaily in our cold-weather months, happy reminders of home gardens. But there is no attempt at arrangement in the natural orders of the books: it would be impracticable with such a profusion of variety—the giant teak and the slender verberna, for instance, would hardly make graceful consorts. The attempt was once actually made by a young superintendent of the garden, whose botanical zeal exceeded his good judgment, to convert the garden into a botanical class-book. Sir Joseph Hooker, K.C.S.I., records (Himalayan journals) that when he visited the place in

Hindú and Christian calendars upon Anglo-Indians, pharmacists, of course, excepted.

It is classic ground to the botanist. Roxburgh, father of Indian botany (the Indian Linnæus), was superintendent here, and Wallich, Falconer, Jack, Griffith, and Royle are among the many great names that are perpetuated in its memorial monuments or its avenues; while one or two of the latter are named in honour of living botanists—the Hooker Avenue, after the distinguished author of the "Flora of British India," grand old veteran still at 80; and the Dyer Avenue, in some measure of acknowledgment of the good friendship of Kew and its learned director.

Although the range of cultivation is naturally very extensive, and the utility of the garden botanically, horticulturally, and agriculturally correspondingly great—amongst its greatest triumphs may be considered the introduction of tea to Assam and the Lower Himalaya from China, and the acclimatisation of cinchona in British Sikkim—it is remarkable that the climate of Lower Bengal is quite unsuited to the growth of very many, even tropical, species. One of the greatest benefits bestowed on India by the garden in its early years was the demonstration by practical experiment that many desirable economic products and exotic plants of economic interest cannot be grown in that portion of the Gangetic delta represented by its soil.

Thus, one of the things the honourable merchantmen had in view at its foundation was that the spices, the pepper-vines, the nutmegs, and the cloves, which had once made the trade of the company with the Moluccas so valuable, might be cultivated in Bengal as an additional source of wealth to that resourceful province, but this was soon proved to be impossible. Similarly, the teak tree (*Tectona grandis*) proved a disappointment. In later years an anticipated scarcity of ipecacuanha, so indispensable in dysentery in India, led to the attempt to establish that humble creeper in the garden and in India. The "Pharmacographia" records that up to 1879 success was still "problematical," and it cannot be said even now to have passed out of the experimental stage in which it has been for thirty years. Coca and one or two species of *Strophanthus* are at present under trial; one of the latter, *S. dichotomus*, a climbing-plant, has curious, long, ringlet-like tassels hanging down from the edges of the corollas.

The materia-medica finds much that is intensely interesting and much that is complementary to the text-books in a

all are well and prominently labelled—of the cajuput tree, remarkable for the peculiar structure of its bark. It is not unlike that of birch externally, sometimes an inch thick, but formed of layer upon layer of easily-separable papery-looking tissue.

The pride and glory of the garden is the world-famous banyan tree (*Ficus bengalensis*). It resembles a small forest rather than a single tree, and throws an area of 1,000 feet in circumference into dark, cool shade, a "cloistered labyrinth," richly garlanded with creepers and orchids, planted, as was the banyan itself, by the birds. Milton's picture of the "fig tree," not that kind for fruit renown'd, is realistic:—

Branching so broad and long that in the ground
The bended twigs take root, and daughters grow
About the mother tree, a pillar'd shade.

The three splendid conservatories have not an inch of glass in them, but are constructed of a framework of iron



AN AVENUE OF PALMS.

visit to such a garden as this. Here are *Cassia fistula*, the Indian laburnum, uncommonly beautiful in its long pendulous racemes of large bright-yellow flowers, or with its familiar legumes a yard long; the gurjun tree (*Dipterocarpus alatus*), straight as a ship's mast and branchless for 60 feet, and a small specimen at that; the sacred bael (*Agle Marmelos*); the nux-vomica tree, with its lozenge-like seeds embedded in the pulp of its beautiful orange-coloured fruit, which contains strychnine, but is nevertheless eaten with avidity by the hornbills and the monkeys; the handsome evergreen, *Tamarindus indica*; *Butea frondosa*, the Bengal kino and the real kino tree of Malabar (*Pterocarpus Marsupium*), which might easily be cultivated extensively in Bengal and thereby make the drug less luxuriously expensive; and quite a museum of others. An interesting group of myrtaceous trees on one of a number of artificial mounds, for the ground naturally is as flat as a pancake, includes, besides such species of eucalyptus as will grow in the, to them, uncongenial climate of Bengal, a number of healthy specimens—

covered with wire netting, on which is stretched a thin layer of thatching-grass, while leafy creepers are trained round the sides—a system which has proved completely successful in the cultivation of many tropical species that would otherwise perish in a climate that can vary from between 40° to 110° F. in the shade, ensuring, as it does, a fairly equable temperature, access of rain, and a gentle, broken shade from the relentless sun. In the largest, known as the "Orchid House," 200 feet long, the royal family of plants makes quite an imposing show each year, in the month of March, when all Calcutta and his wife go to see them. In this house may be seen fine growing specimens of vanilla, which has to be fertilised artificially, and of sarsaparilla, a pretty creeper. The Palm House is built on the same principle, and is devoted to such species of equatorial palms as do not take kindly to life out of doors, and here, again, is a wise departure from the usual order of things, for every plant is established in the ground—an obvious improvement over the plan of growing them in tubs. The Herbarium

building, which embraces the Library and the Laboratory, is built on the same principle as that of Kew, with the additional feature that it is fireproof. Its *hortus siccus* is one of the most complete in existence, and includes, besides the flora of the Indian Empire and that of Asia outside India, a fair collection representative of Europe and of Australia, and in a less degree of Africa and America. No other herbarium in the world, Kew not excepted, has an equal record for distribution, so lavish in the early years that this herbarium does not possess a single specimen of the priceless collections of Roxburgh, although there are a few at Edinburgh and elsewhere. Distributions are now made each year to thirty-eight of the principal botanical establishments and notable herbaria of the world.

And now a word about the eminent custodian of this great treasure-house of botany. Brigade-Surgeon Lieut.-Col. George King, C.I.E., F.R.S., the greatest botanist in all Asia, has,



GEORGE KING, M.B., LL.D., C.I.E., F.R.S., F.L.S.,
Corres. M.P.S.

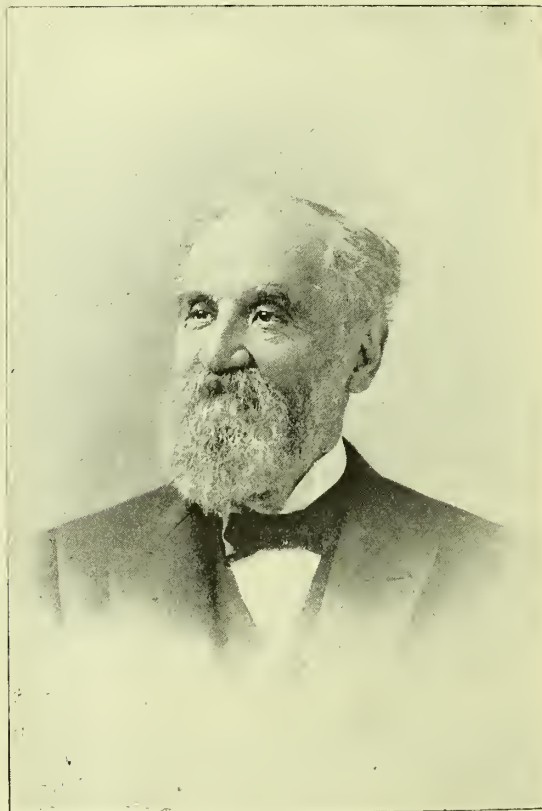
during the twenty-five years of his incumbency of the superintendentship of the garden, immensely increased the plant-wealth under his care, and maintained and enhanced the reputation of the establishment as an important centre of botanical industry. During those years has been growing slowly and silently under his care, and authorship for the most part, the "Annals of the Royal Botanic Garden, Calcutta," stately tomes, in quarto, monographs, chiefly, of specially difficult Indian natural orders, every line of which represents hours, days, of patient research—authoritative contributions to botanical literature. The plates illustrating each individual specimen enumerated in these volumes are drawn from life, lithographed, and coloured by hand by Bengali art-students with a devotion and a precision which is marvellous to those unacquainted with the faculty of imitativeness innate to the educated native of Bengal. The latest of these volumes—the seventh—has just been published by the Government of India. It treats of the *Bambusa*—the bamboos of British India. But what has won for Dr. King the title of one of India's benefactors has been the phenomenal success of the cinchona-plantations in British Sikkim, for which he has been in great measure responsible. Their administration is still part of his duties. The Government of India has not only adopted his recommendations, but has carried them out with a liberality that has been completely justified by results. Figures are tedious, but it is sufficient to say that the considerable initial outlay incurred in the undertaking has been repaid several times over, while something like 40,000*l.* a year has been saved to India by the substitution of country-made quinine and "Government cinchona febrifuge," an unpurified "quinetum," for the imported articles, while the distribution of quinine in unheard-of numbers of 5-gr. doses, which may be purchased by the very poorest for about half a farthing, is as great a boon as has ever been conferred on India's malaria-soaked millions.

A MAN OF FEELING.—A Parisian dentist's usher when showing a patient into the waiting-room asks in the most tender tones, "Whom have I the pain of announcing?"

The Oldest American Peppermint-Distiller.

THE story of the beginning of the peppermint industry in the United States has an element of romance about it. Fifty-five years ago a Yankee pedlar, known familiarly as Jim Burnett, roamed New York State. On one of his trips into Wayne County he discovered peppermint growing wild there. This plant was quite common in the pedlar's home in Massachusetts, where farmers added a few dollars annually to their income by distilling the oil and putting it on the market. Spearmint, the common mint of the spring water-ways and moist-meadow reaches, grew nearly everywhere, but peppermint had at that time been found nowhere in the country outside of Massachusetts. Recognising the value of the plant, pedlar Burnett began gathering and distilling it. The farmers of Wayne County watched him for several years before it occurred to them that he was making quite a snug sum out of it. Then they began to cultivate the plant as a regular farm crop. It improved by cultivation, but so little general importance was attached to it that no more than 200 to 300 lbs. of oil was distilled yearly.

The man who is now known as the peppermint king, H. G. Hotchkiss, then kept a country store at Phelps, near the



Wayne County line in the peppermint belt. Mr. Hotchkiss had taken peppermint oil from farmers in payment for goods until he had on hand so much of it that he would lose money if he could not dispose of the lot for \$1,000. The problem was to find a market for all that oil from an unknown peppermint-producing district. He put his oil in tin cans and took it to New York City. None of the drug-houses would buy it, because they did not believe that it was pure. This emergency brought the business ability of Mr. Hotchkiss to the surface. The now old-fashioned 21-oz. lipped ink-bottles had just come in and Mr. Hotchkiss purchased a lot of them, removed his peppermint oil from the tin cans, and after satisfying himself that it was as pure as any oil then on the market, placed it in the bottles, hermetically

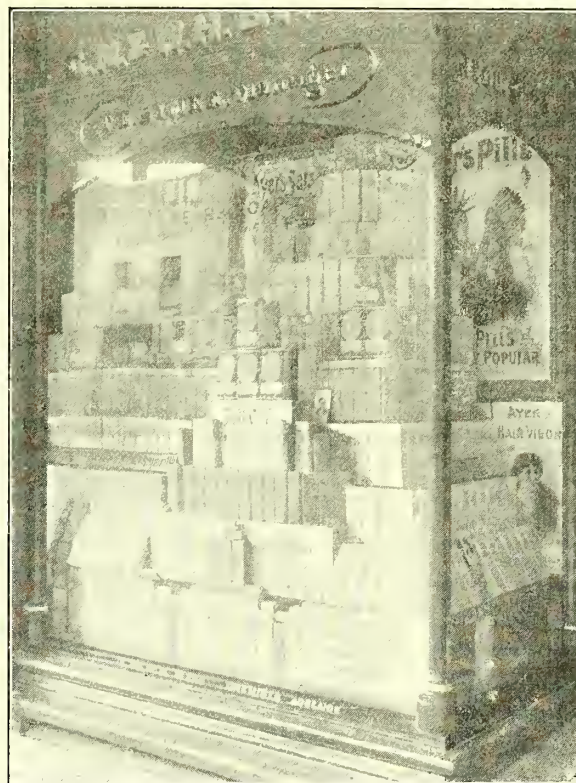
sealing them, and consigned the oil to a house in Hamburg, naming his price if the oil was accepted. At the end of several months' waiting Mr. Hotchkiss received a draft for the amount he had asked for his oil and an order from the Hamburg house for another consignment. Most of the oil was sold back by the German firm to the dealers in New York who had refused to have anything to do with it when Mr. Hotchkiss offered it to them first hand. The demand for Wayne County oil grew so rapidly that the cultivation of peppermint became the chief occupation of the Wayne County farmers. Mr. Hotchkiss gave up all other engagements and devoted his whole attention to the growing and distilling of peppermint. The average annual yield of peppermint oil in Wayne County is now 150,000 lbs., nine-tenths of which is controlled by the Hotchkiss family of Lyons. Mr. Hotchkiss still packs the Wayne County oil in bottles made after the exact pattern of the bottles in which his original shipment to Hamburg was packed in 1844. For years the Wayne County oil was considered by the trade superior to all others, but the distinction between Wayne oil and Michigan oil has now been dropped from most of the New York price-lists.

The cultivation of peppermint is simple, but it requires much labour to keep the fields free from weeds. The daisy and the golden rod are a great pest to the peppermint-grower, but a weed little found outside the peppermint-fields is a perpetual menace to the purity of the oil. This weed is locally known as ragweed, but it is not the old-fashioned ragweed that grows everywhere. It looks something like lettuce and yields of itself an abundance of pungent and bitter oil. A little of this weed, if distilled with the mint, greatly diminishes the value of the oil. As a rule, however, peppermint is not troubled with insects of any kind.

In Adelaide Pharmacy.

ONE of the finest retail pharmacies in Australasia is that of Mr. William H. Birks, 59 Rundle Street, Adelaide, South Australia, which was established in 1858. Homoeopathy is the backbone of the business, but all branches of pharmacy are conducted in it, and that in the go-ahead style which is characteristic of our colonies. Mr. William Hanson Birks is now the sole proprietor of the business, since the retirement of his brother, and he has a most competent and

doorway, and the exhibit is made up entirely of Ayer's specialities:—



Mr. Coudrey, one of the assistants in the establishment, informs us that these displays are effective in bringing business. The interior of the pharmacy is magnificently fitted. The east side of it is used as a retail-counter and for dispensing. The west side is as shown here. It will be observed that the tops of the wall-cases are used for displays of goods. These are changed regularly, and are always kept nice and fresh. Of course, empty boxes or cases often make up the pyramids. The show-bottles and vases used are both English and American. Those on the top of the upright case in the picture were from Whitall, Tatum & Co. They stand on elegant marble pillars.



energetic manager. The shop is a corner one, and has two fine show-windows at each side of the doorway. In these single shows are made—i.e., a window full of one article, such as Pears' soap, a proprietary medicine, or something else that will make an effective show and bring custom. The window shown here is the one at the left-hand of the

of Government. Moreover, it has been proved that the coal used was American anthracite, a class of coal which has never been imported into India, but is used in China. And there the mystery remains. The fraud is doubtless perpetrated by some heathen Chinese on the cargo-boats between Calcutta and Shanghai.

COAL IN THE OPIUM-CASES. — The opium-merchants in Hong-Kong have been perturbed in their minds no less than in their pockets by receiving, from time to time, what they identified as balls of Bengal coal among the balls of Bengal opium imported from Calcutta, and have memorialised the Board of Indian Revenue on the subject. That august body, while treating the communication with all the deference due to a good customer, who contributes annually 8,000,000%, or just a seventh part of India's total income, to its resources, denies the possibility of any such "accident" occurring at the time of packing or before the opium passes out of the hands

Old English Plant-names.

By C. C. BELL.

TO trace back the steps by which men have climbed to knowledge is always interesting, and of all the branches of antiquarian research perhaps the most fascinating is that which explores the origin and meaning of words. For, heretical as it may seem to say so in the pages of a journal largely devoted to science, nothing in the universe is so interesting as what men have said about it; and science itself has a larger claim upon our attention as an evidence of man's intellectual power than for the light it sheds upon nature. This truth may not be obvious from the utilitarian point of view, but we may at least say that if it had always been kept in mind there would have been less antagonism than there actually is between science and literature.

These thoughts are suggested by the recent study of two books published, under the editorship of Mr. J. L. G. Mowat,* by the Clarendon Press in the mediæval and modern series of the "Anecdota Oxoniensis," and known respectively as "Sinonoma Bartholomei" and "Alphita." They are glossaries of medico-botanical terms, and are printed from MSS. in the Bodleian and other Oxford libraries. The former, which is the older and much the smaller of the two, was composed by John Mirfield or Marfelde, an inmate of the monastery of St. Bartholomew in London (hence its title), and dates from the time of Henry VI. or earlier. Mirfield is known to have held a distinguished position in the monastery as early as 1392. "Alphita" is a little later in date, and its authorship is unknown; but the editor states that it is essentially the same as a glossary bearing the same name published in Renzi's "Collectio Salernitana." It need hardly be said that both works contain matter of great and various interest to the student of medical history, but they are especially valuable to the philologist, the names of most of the plants and other materia medica contained in them being given in Latin, French, and English. Many of the English names occur also in Lyte, Gerard, Parkinson, and the other old herbalists, and a considerable number are still in use, but these are not now in every case applied to the same plants as formerly. Gerard gives others of them in his list of obsolete names, but when these are deducted a good many still remain which had gone out of use before he wrote. Among these are some of especial interest. Donnhoof (spelt "dunnhove") is one. It is the same as coltsfoot, "dunn" or "dun" being an old name for horse, whence comes "donkey"—little horse. "Wowel" and "feldhove" are names given to the same plant. With these may be compared "hayhove" (apparently meaning hedgefoot), a name for ground-ivy, which plant Gerard calls "tune-hoof" (possibly a corruption of "dunhoof," mentioned above) and "alehoof," a name it still bears, which is probably a corrupt form of "hayhoof." "Cetewale," which the glossaries give as English for "zodoar" (zedoary, a species of turmeric), appears in Lyte and Gerard as "setwall," a name for valerian; Chaucer, in "The Millere's Tale," names it along with licorice. Wermode in these glossaries means "wormwood," and is the correct form. Skeat explains it as "waremood" (preserver of the mind); Mr. Mowat, with greater apparent likelihood, says it is "ware-moth" (preservative against moths). This certainly accords with the French *Garde robe*, and with our old rhyme—

Where chamber is sweeped, and wormwood is thrown,
No flea for his life dare abide to be known

—which, however, Mr. Mowat does not quote. *Wilde keyn*, again (which appears in the glossaries under *Viscus quercinus*, and is evidently an echo of the French *gui de chêne*), is not in Gerard. Glue, by the way, *quo aves capiuntur*, appears in "Alphita" as *Glyu*.

Other names calling for particular mention, some of which appear in Gerard and some not, are "groundswile" (groundswallow), an appropriate name for so prolific a weed as groundsel; "wymalve" (French, *guimauve*), for mallow; "hepebrede" (hip-bread), for dog-rose; "horse-heal," for elecampane; *Oculus Christi*, for clary; *Capillus Veneris*, for

maidenhair (so-called from its property of repelling water, Venus having risen from the sea with her hair unwet); "cukkowspitte" and *Barba Aaron*, for arum, which is also called stondegousse, a name which recalls the "foul standergrass" of Fletcher's "Faithful Shepherdess"; "Geneure" and "gost," for juniper—the latter equivalent to "gorst," or gorse; "hennedwole" (= hen's dwale), for henbane; "allertre," for elder; "stammersh," for stone-parsley (Gerard calls horse-parsley by this name); "crowelek," for *Allium agreste*, which Mr. Mowat takes to be meadow-saffron, though Gerard gives the English name to our harebell (*Hycinchthus nonscriptus*); "dayeseghe" (day's eye), bonewort, and bruisewort, for *Consolida minor* (our field daisy). *Primula veris*, by the way, is given as a Latin name for both this flower and the primrose, the latter flower being glossed thus: "Primula veris, prima rosa [idem], gall. et ang. prime-rolle. [Respice in consolida minor.]" Thus, too, Gerard:—"The daisie is called . . . of Tragus, *Primula veris*; but that name is more proper unto primrose." *Consolida media*, the great or ox-eye daisy, which it is now fashionable to call "marguerite," a name which rightly belongs to the little daisy, *Bellis perennis*, is glossed "whit-bothel velseynt Mary Maythe." Gerard calls it similarly Maudlin-wort (from St. Mary Magdalen) and white bothen. The latter word should evidently be bothel (or bottle), as in the glossary, where the marygold is called "yellebotel," or yellow-bottle (compare blue-bottle.) Shepherd's needle, which Gerard calls "ladies' combe," is glossed less flatteringly as "Pouclesnede," which, on the authority of a quotation in Halliwell, may be taken as equal to devil's needle; dandelion (*dens leonis*) as "doloronne"; hollyhock as St. Cuthbertscole; bryony as "wildnep"; burdock has given to it the name *filantropos*, because its seeds stick to men's clothes; duckmeat appears in a particularly interesting form as "*cibus anatis*, ang. enedechede" (a clerical error for "*enedmete*," "ened" being an old name for duck. Similarly "paddocstol" recalls the old name for frog or toad. "Cold as paddocks though they be, Here I lift them up to Thee," says Herrick's child of her hands in her "Grace before meat." "Aloen" are distinguished as of three kinds—"cycotrinum," "epaticum," and "caballinum." Colocynth appears as *coloquintida*, thus glossed "Crescit ad modum sepe pomum est cuiusdam fructicis (in) transmarinis partibus nascentis (Respice in gelaya)." Opium appears as "Opium Thebaleum" (indicative of its geographical source), glossed "Succus papaveris albi" and "opium miconis, succus papaveris nigri." The entry immediately following this is a sad muddle, being "Opium quirrinacium, lesera, quilleya, succus iusquiami, idem." This is in "Alphita." In the "Sinonoma" "opium quirrinacium" is glossed "assafoetida idem"; what "quilleya" is it is impossible to say; "iusquiamus" is henbane. This is only one instance of many hopelessly confused glosses. White, black, and red poppies appear under their respective Latin names, and of the second we are told that diacodion is made. Nothing more is said of their use. Cowslip appears under "Paralisis herba" as "cousloppe," meaning cowdung, a not very poetical name; "endye" is under *Lactuca*. The glosses on *Dracunculus* are interesting as specimens of the fancifulness of our forefathers: "Dracuncæ, asclepias, viperina, pentaria, serpentilla, colubrina, basilica (basilisk), cocodrilla (cockatrice), idem, gallice et anglie, dragaunce" ("in English, dragons," says Gerard, who gives an equally long, but different, set of synonyms from Apuleius Barbarus). "Mandragora" is described at length as of two kinds, male and female; no other name is given to it. "Sene" (senna), again, has, as yet, no English form; and it is interesting to note that both these plants are mentioned by Shakespeare in the form here given. "Zinziber" also appears only in this form, and rhubarb only as *reubarbarum*.

But perhaps a sufficient number of these names has been cited to show their general character. Many of them, as we have seen, have a marvellous vitality, considering their haphazard origin; many others that equally deserved to live have virtually perished. A number of them are merely translations from classic or oriental writers, or from the Latin herbariums of the barbarous age. Such are "pursewort" (*Capsellula*), "sengrene" (*Semperviva*), "hartestonge" (*Lingua cervina*), and hundreds of others. In some cases our common English names are merely Latin

* In 1882 and 1887.

ones differently spelt as "fumitory" (*Fumus terræ*), which appears in "Alphita" as "fumetere." The mental origin of the names (so to speak), both Latin and English, is a subject full of interest. This, naturally, is most apparent in the older forms. Some of them are due to some real or fancied virtue in the plant, as "tutsan" (Fr., *toute saine*), heal all; others—and these are legion—to some accidental resemblance to other natural objects, or to some superstition connecting the plant with devil or saint; others to their habit of growth, or time of flowering; and many, of course, to causes which we cannot even guess at. Many of them, moreover, are applied to three or four, or even more, different plants, and, contrariwise, most of the plants have many names. The descriptions of the plants are often so vague or erroneous that it is impossible to say what is meant, and the spelling is occasionally so quaint as to be in itself a thorough disguise. Who, for instance, but the most painstaking of editors would have detected "Greek nettle" under "Crekische netche"? Fortunately, the editor's notes, though brief, are admirable, and give in most cases adequate guidance to anyone sufficiently interested to take a little pains, and possessed of as much Latin (and intelligence) as is nowadays necessary to a pharmacist. It ought to be mentioned that, in addition to plant-names, both these glossaries (but especially "Alphita") contain many medical and pharmaceutical terms the explanations of which are equally interesting. They show the extent and limits of the medical science of those days; and if the ignorance displayed should strike us as more remarkable than the knowledge, we may reflect that possibly our not remote descendants may be similarly impressed by the records of our own achievements.

Theatrical Make-up Trade.

BY A PROVINCIAL CHEMIST.

THE stocking of "theatrical requisites" or "make-up" for the theatrical profession is, no doubt, a valuable adjunct to a chemist's business, especially if the shop is in the vicinity of a theatre, music-hall, or public hall where performances are given, and proper means are taken to let the fact be known that such articles are kept. There are many ways of doing this, but the best is to have a framed card put up in each of the dressing-rooms of the theatre or hall, like this:—

All Theatrical Requisites
at wholesale prices
kept in stock.
MR. PUFF, chemist,
Rouge Street.
List of Lodgings kept.

It will be noticed that wholesale prices are mentioned. This is imperative, as everything must be sold at reduced prices, otherwise the members of a company will club together and get their requirements from London, where everything can be had at almost cost-price, and all chemists throughout the country sell at the reduced prices. The last line on the card may be omitted; but keeping a list of people willing to put up "theatricals," with the accommodation of each and price, and if with or without a piano, is a valuable means of bringing the performers to the shop as soon as they arrive in town. Other means of advertising will suggest themselves, such as a card similar to the card for the dressing-rooms, and also advertising on the programmes of the entertainment.

It will be seen from the following list that the margin of profit is small, but it should be remembered that a lot of other business follows in the way of prescriptions, &c., and there is, besides, a growing demand amongst amateurs for make-up, and in these cases full prices can be charged. By a little judicious inquiry from professionals one soon gets to know the uses and mode of applying the make-up, and is thus able to give instructions to amateurs.

Make-up boxes, for the use of amateurs, containing all that is required, are sold from 1s. 6d. to 20s. The larger

ones are intended for amateur companies, and the smaller ones for individual use. But the social standing of a chemist's clients has to be taken into account before stocking these. One or two in the window (in cold weather only) and counter or show case help to advertise them. In making up the first order a chemist must take care to have the stock fairly well assorted.

In the days of stock companies the theatrical chemist got to know what each member of the company used, and, as he could depend on the company remaining a whole season, knew what to keep in stock. But now that travelling companies have taken their place and seldom remain more than a week or two in a town, the stock must be more varied. For instance, the ladies of one company may all use Java Powder. The following week the ladies of the next company may want Lily Powder, and the next may want Poudre d'Amour. This is only a sample of what happens with one article, and as there are four shades of each of the above powders the exercise of discretion is necessary.

The business in theatrical make-up is mostly done within half-an-hour in the evening, when the members of the company are going into the theatre, and it is important to have all requisites in a convenient space by themselves.

WHAT TO STOCK.

Grease-paints and lip-salves should be Leichner's, of Berlin, as these are best known to the profession. They are all put up in boxes of $\frac{1}{2}$ doz. The most important article in make-up stock is grease-paint or wig-paste or joining-paste. The various shades are known by numbers, 1, 1 $\frac{1}{2}$, 2, 2 $\frac{1}{2}$, and so on, up to 20. The first four numbers are different shades of flesh-colour. No. 12 is black, and No. 20 is white, and is mostly used by clowns. Each number is put up in boxes of six short sticks, costs 3s. 6d. per doz., and sells at 6d. per stick, 4 $\frac{1}{2}$ d. to the profession. The numbers most in demand are from 1 to 3 $\frac{1}{2}$ and 7, 12, 14, and 20.

The next in importance are long liners. These are long sticks of the same material, thicker than a pencil and pointed, and are used for making lines and wrinkles on the face and neck. The common colours are black, lake (or old red), brown, dark and middle blue, orange or lemon, and white; cost 2s. 6d. per doz.; retail 4 $\frac{1}{2}$ d. Then come small liners; these are for much the same purpose, but for finer lines, such as pencilling the eyebrows and round the mouth. The colours are the same as the long liners, with the addition of carmine and dark red; cost 2s. 3d., and retail at 4d.

Red grease-paints are smaller than wig-paste and are made in five different shades—carmine No. 1, No. 2, and No. 3, carmine-vermilion, and rose-pink; cost, 3s. 6d.; retail, 4 $\frac{1}{2}$ d.

Cocoa-butter is used for taking off the grease-paint. It is put up in small and large sticks, and sells at 4 $\frac{1}{2}$ d. and 9d.; cost, 4s. and 8s. per doz. Atkinson's cold-cream is used by some of the ladies. Vaseline cold-cream, and even lard and cocoa-nut oil, are all used for the same purpose, according to the choice, or often the purse, of the individual.

Black, brown, and white cosmetics ought always to be in stock, also the same three shades of pomade Hongroise and black water-cosmetique (which is applied with a brush and water), and sell at 1s. and 1s. 6d. per box.

Crêpe hair is a jute substitute for human hair, and is made in all the shades of hair. The most important shades to have are white, three shades of grey, three shades of brown, and black. It costs 3 $\frac{1}{2}$ d. per yard, and sells at 6d.

Spirit-gum, used for sticking on crêpe hair, may be had in bottles, or can be made by the chemist, as follows:—

Common resin	3j.
Castor oil	3ss.
Spirit to	3iv.

Dissolve.

This is sold at 2d. per oz.

TOILET-REQUISITES.

As every chemist knows, there are dozens of toilet-powders made and advertised, but the kinds that every professional knows are "Java-powder," "Poudre d'Amour," and "Fettpuder." Each of these is made in three or four shades, but white, naturelle, and "Rachael" are most sold. If the chemist has not the kind asked for, the profes-

sional customer is sure to take one or other of the above, which cost 8s. per doz., and sell at 9d. or 10½d.

Toilet-creams are used for the same purposes. The best known of these are Crème Simon, 2s. 6d., and Crème Impératrice, 2s., which is made in three shades, like the toilet-powders.

The ordinary lip-salve stocked or made by the chemist is of no use for the profession. What they require is really lip-paint, and is put up in 6d. sticks and 1s. pots, costing 4s. and 8s. per doz., and sold at 6d. and 1s. or 10d. each. Like all the other preparations, these, where possible, should be Leichner's.

White-skin lotion is also much used for the arms and neck, and may be made by the chemist, as follows:—

Zinc. oxidi	..	..	..	..	5iv.
Glyc. et aq. rose	..	..	..	..	3iij.

M.

3-oz. bottle, 6d.

Ruddy rouge-powder, for giving a sunburnt appearance, and blue-grey powder, for giving an unshaven and deathlike appearance to the skin, are also necessary. One or two boxes of each are sufficient to stock. Cost 3s. 6d. and sell at 6d. per box.

Burnt cork for nigger entertainments is put up in tubes; cost 3s. 6d., sells at 6d. This is mostly used by amateurs, and full prices are charged.

Hares' feet are used for applying powders, and are sold either in the natural state or mounted on bone handles; cost 3s. 6d. and 6s., sell at 6d. and 9d. or 10d. Rouge is put up in round flat dishes of compressed rouge enclosed in a round flat box. The kinds in request are Leichner's No. 96, 1s., and Roger & Gallet's No. 18, 6d. There are other tints made according to the numbers, but the above are sufficient. Vinaigre de rouge is for the same purpose as rouge, and is put up in 6d. and 1s. bottles, or may be made according to Rouse's formula for bloom of roses with his carmine; 2-dr. and 4-dr. bottles, 6d. and 1s. Theatrical puffs are specially made for the profession. The puff-skin is sewn on to a round piece of coloured calico, and a fine thread inserted through the seam round the edge, to draw like an old-fashioned purse. When in use it is reversed, and then folded back and the thread drawn, so as to be carried in the trunk without the bulk of a puff-box. Great care must be taken in buying these, as they can be had in London by the profession almost cheaper than a chemist can buy them. The retail prices are 4½d., 6½d., 8d., and 10d. Small rouge-puffs are made, but seldom asked for.

SUNDRIES.

Hydrogen peroxide is in constant request, and is sold at 2d. per oz.; prepared chalk, 6d. per lb.; 1-lb. tins of vaseline retail at 1s. 4d. or 1s. 6d.; carmine, Armenian bole, cheap cold-cream, to sell at 2d. per oz.; toilet-soaps, oxide of zinc, glycerine and rose-water, and many other articles which are in constant demand are all stocked by the chemist, and sold at ordinary prices. Patent medicines are all sold at wholesale prices. Nearly all actors and actresses have their favourite patent medicine or prescription for the voice, colds, &c., which helps to make the theatrical-requisite business pay. And the chemist will find it to his advantage and profit to make every transaction cash.

The lady professionals who buy perfumes have all their special makers' perfumes, which they buy from the stores at the very lowest price, if they do not get them from their admirers; but most of them are strong in their demand for sample-bottles of the advertised perfumes, such as "Cherry Blossom," which very often constitutes their sole supply, and leads to nothing, or when they do buy it is in small quantities from bulk to last them for the week.

As a rule professional people are very pleasant to do business with, and a chemist will be surprised to find how many of the male part of them have been drafted from behind the dispensing-counter and from the medical profession, though all other professions are well represented.

"DON'T you think you ought to hev a doctor, Uncle Silas?"
"No; I'll stick to the old-fashioned remedies. I don't want no doctor comin' in an' askin' you what's the matter with you, an' then sendin' you a bill if you happen to git over it."

The Importance of Being Careful.

WHEN to pharmacy you're 'prenticed (says the learned cognoscentist, who both chemist is and dentist, therefore unto him take heed),

Even although you may be clever, yet unless you do endeavour to be careful, you need never, never hope that you'll succeed;

For the art of being careful, exercising caution prayerful, keeps you from all inquests fearful should a client be found dead,

And from coroners who utter thoughts which put you in a flutter, and which e'en may make you mutter, mutter curses on his head.

So when Ma, in broadest Doric, calls for "squeels an' parygoric"—'tis the remedy historic for her darling infant's cough—

Of course, you must refuse her; and though she may abuse yer, pray do not unkindly use her, but just tell her to be off

To your rival most unwary—and, lacking thought or care, he helps to fill the cemetary with her little angel child;

And of course he loses custom, and no cautious people trust him, and you do your best to bust him, though appearing meek and mild.

When a raging toothache maddens, or a painful earache saddens, keep the laudanum which gladdens safe within its stoppered cell;

And it really is much wiser, when one wants an appetiser, to give draughts of tiny size or p'raps the patient mayn't get well.

Shun chlorodyne and brandy and the deadly sugar candy, nux. vom. and jaborandi and ext. colchici acet.,

And to clients feeling ill you'll give a homœopathic pilule—though it doesn't cure 'em, still you'll have no rashness to regret.

W. C.

Gross Grocery.

WHEN grocers soared from grocery
To general providing,
And opened drug departments that
Sent prices downward sliding,
We drew the line at poison-sales,
And in the courts bore witness
That absence of certificates
Proved obvious unfitness.

But sanitary officers
Have raided potted meats,
And shown deception capable
Of quite prodigious feats;
If anthrax cow and rabid dog
Make tasty potted chicken,
Around the trustful average man
Grave dangers darkly thicken.

And if it's proved that anchovy
Is sold for grocers' low gain
In such a state that it consists
Of nought but pickled ptomaine,
It would appear that public weal
O'errides our just contentions,
And comminates our arguments
To very small dimensions.

Our duty's clear, to agitate
For parliamentary votes
To grant the grocer power to sell
Appropriate antidotes,
Carbolic with the caviare,
Nor must we at the loss rage,
Perchloride with the potted prawn
And soloids with the sausage.

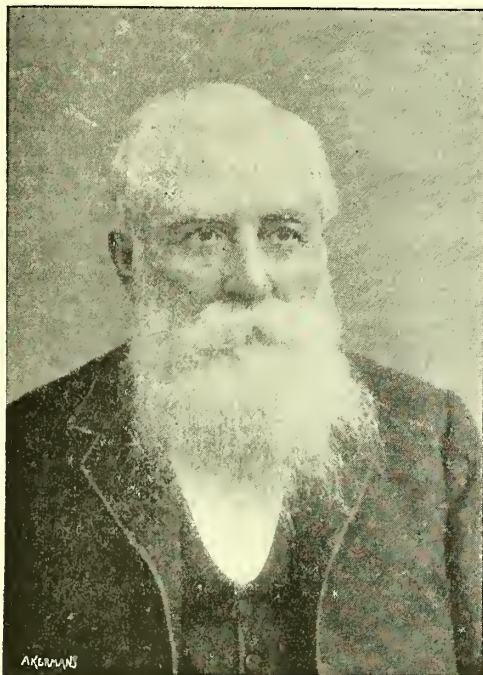
A. HOSTING.

No. 3.

Our Melbourne interviewer has a talk with Mr. Joseph B. French, who holds the British Major certificate marked "No. 3," and Mr. French relates many curious things which have happened during his eventful career.

MR. G. F. SCHACHT'S retirement from practical participation in pharmaceutical politics brought out the interesting fact, mentioned in THE CHEMIST AND DRUGGIST of March 14, that of those who passed the Major examination at the same time as Mr. Schacht one only is now on the register—viz., Mr. J. B. French—and he is in Victoria—in Castlemaine, according to the register. But Mr. French has thrown off the cares of business, and retired to Melbourne, where one of our resident staff sought him out. Mr. French cordially accepted the proposal of a chat, "if only," he added with a smile, "to correct the idea that I am still living at Castlemaine. I left there many years ago."

Mr. French is hale and hearty, and in personal appearance and *bonhomie* somewhat resembles Mr. Elias Bremridge.



He has had a varied and successful colonial career, and his talk is of extreme interest to colonists; indeed, to chemists at home also, for the old gentleman was one of the pioneers of English pharmacy in Greater Britain. My first question, writes our representative, to Mr. French after we had settled down to business, was as to where he served his apprenticeship, and I give you his reply and the subsequent ones in, as nearly as possible, his own words.

"It was in my native place—Chatham, Kent—that I learnt the trade," said Mr. French. "My excellent friend Edward Rook, pharmaceutical chemist, Sittingbourne, Kent, was a junior under me. My indentures, which I still have, are dated May 13, 1838, so that I was released in 1844."

"Was it then that you went to Bloomsbury Square?"—"Not until the autumn, when the 1844-5 session began. The laboratory was opened then. I spent the interval in botanising, for I was an enthusiast in that subject, and many a mile did I walk in those times when collecting for my 'Herbarium,' which is now in the Sydney Technological Museum. I lived then near by Anne Pratt, the author of 'The Flowering Plants and Ferns of Great Britain,' who died in 1893, at the age of 87 years. She had great literary

gifts, and she gave me valuable instruction and outdoor demonstrations in our walks."

"Was the attendance good at the lectures at Bloomsbury Square at that time?"—"The lecture-hall was filled with enthusiastic pupils and some employers. The lecturers then were:—George Fownes in chemistry, Jonathan Pereira in materia medica, Anthony Todd Thomson in botany, and Theophilus Redwood in practical pharmacy. My recollection of them is that they absorbed our interest."

"Did you do well in the classes, Mr. French?"—"Well, I got something in every subject—botany, second prize; chemistry (inorganic), first certificate; chemistry (organic), second certificate; practical pharmacy, first certificate; and materia medica, third certificate."

"Did you go up for examination then?"—"Yes; my certificate is dated August 19, 1845, and is signed by John Savory as chairman, and by Jacob Bell, Robert Alsop, T. N. R. Morson, Peter Squire, and William Ince as examiners."

"And then?"—"Well, soon after passing the Major I took a situation with Messrs. Terry & Dutton, of Bath, with whom I remained three years. Then, in 1848, I purchased the business of Henry Taylor, 10 Pall Mall, London. This business I sold to Mr. R. W. Thomas in 1850. He was the founder of the photographic-plate firm. I then took a situation as mercantile clerk and bookkeeper in the City of London, as I wished to stay in London over the 1851 Exhibition, and the City hours gave me great opportunities of seeing the world's first great show. In 1852 I went as an assistant to a large wholesale and retail establishment in Calcutta, but returned at the close of the year. Neither climate nor engagement was suitable to me. Soon after I was tempted to try Australia; gold-digging was what I was after. Early in 1853 I joined a small party, and after reaching Melbourne we proceeded at once to the McIvor diggings in the true diggers' style of those days. We worked there unsuccessfully, as well as at Ballarat and Castlemaine. Very little gold did we get, but we lost some, and returned to Melbourne thoughtful and disappointed just before the end of the year."

"And you found the gold there?"—"I found situations abundant and money plentiful. I saw a bookkeeper advertised for in a wholesale drug-store (Messrs. Williams & Clemes), applied, and was engaged at once at four guineas a week, soon raised to five, which was a good advance on my London salary. Here a curious circumstance occurred one day. One of my associated students at the laboratory, Bloomsbury Square, went into business at Birkenhead, near Liverpool, where I paid him a visit, but did not see him afterwards. When at the ledger, with my back to the counter, I heard a business question by a voice so well known to me that I at once walked forward and said, 'How are you, William Johnson?' I was astonished, and he was staggered, for neither of us knew of the other's arrival in the city. He had arrived only a short time before myself, and he invited me to his residence to spend the following Sunday. This was a tent in the middle of a field, where I found him with his wife and child. The district was called Windsor, and he there commenced a very successful career in a wooden building which he erected shortly afterwards, and which, with many additions, remains a pharmaceutical establishment of repute to this day. He gained distinction in manufacturing some chemicals for the trade, which was then a lucrative occupation. Subsequently he became Analyst to the Victorian Government, which office he retained for many years, conducting his general business also until his decease."

"Was Johnson at the Square?"—"Oh, yes. I am sure Mr. Schacht and Dr. Paul will remember him as one of the best students of the term. He was between Paul and myself in organic chemistry—he was a born chemist; studious, thoughtful, and astute, and very proficient in practical work. At the laboratory we used to call him 'Dr. Johnson.'"

"Was the 'Major' any good to you, do you think?"—"Most decidedly; and the public in the early days recognised the guarantee which the school certificate afforded us when all sorts and conditions were arriving here, so that it had a commercial as well as an educational value."

"Your next move, Mr. French?"—"Towards the end of 1854 the firm with whom I was engaged collapsed, so I started business at Sandridge, now called Port Melbourne. I was soon

getting a payable connection, when typhoid laid me up, and by the time I got back to my shop very little business was left. I then opened a shop at a place then called 'Emerald Hill,' which is now South Melbourne. This was an immediate success, and in a few months I was out of debt and making money. Not many months after I was informed of a more lucrative opportunity at Williamstown, seven miles from Melbourne. So I sold out at South Melbourne and settled at Williamstown, and was getting along pleasantly and seemed settled, for, you see, I married in September, 1857. But some friends at Castlemaine, about eighty miles from Melbourne, in the centre of the gold-mining and agricultural district of Talbot county, would have me go up there to prospect. I did, and the result, summed up, was—land leased, and architect instructed for the 'Talbot Drug-store,' which consisted of a large shop for a wholesale and retail drug-trade, with dwelling-house, at earliest date. I sold my business at Williamstown, and for thirty-nine years my successor there—Mr. T. M. Blackett—has done a lucrative trade, to which his son succeeded as sole proprietor last month."

"But how did you manage about fittings in the Fifties?"—"Ah, that was a job! But, you know, there were good stocks of drugs, chemicals, and druggists' sundries, including unlabelled shop-rounds, here then, but a professional gold-labeller was not to be found. I got a shop-fitter—the only one. He could use a hammer, but not a brush. So I tried to do it myself here in Melbourne, and after that I had to get the whole of my stock and fittings taken to Castlemaine by road, which was mostly a bush-track, at 40% per ton weight, and the carriage of my opening stock and effects cost 250%. Ah, it was tedious work! But I opened in June, 1858, and did well until my health broke down in 1866, when I sold out to my assistant."

Mr. French spoke highly of his successor at Castlemaine, and incidentally stated that by that gentleman's courtesy for thirty years his own name had remained on the register of pharmaceutical chemists as of that town, and letters had always reached him forwarded to Castlemaine. In search of health Mr. French went to Hobart Town, Tasmania, and to Sydney, N.S.W. While in the latter place Mr. Henry Youngman, who had a wholesale and importing business in Melbourne, with a branch at Sydney, asked him to take a partnership. This he did, and, under the trade-name French, Kempthorne & Co., business was pushed ahead. Mr. Youngman's death, in 1868, necessitated realisation, and Mr. French retired, Mr. Kempthorne continuing as manager of it until the business was converted into a limited liability company, under the name of Kempthorne, Prosser & Co.'s New Zealand Drug Company (Limited). Returning to Melbourne, Mr. French became one of the founders of the wholesale and importing firm, Fitch & French, now Wm. Dean & Co., who bought the business in 1874.

"Have you never been home all this time?" asked our interviewer. "Oh, yes," said Mr. French. "When I sold out in 1874 I took a prolonged holiday in the old country. I visited Bloomsbury Square then, and found only remaining, of all I had previously known there, Professor Redwood, whose acquaintance I renewed. I had the pleasure, also, of afterwards meeting Mr. G. F. Schacht and Dr. B. H. Paul, who were my esteemed associates at the laboratory in 1844-5."

"And what has been your life since?"—"On returning to Melbourne, a few years after, I found that the face of business in the colony was much changed, and the temptations to engage in it were less frequent. I spent my time visiting various colonial centres until, in 1887, Messrs. Wm. Dean & Co. asked me to undertake the management of their business. A partnership was offered me in March, 1888, and there I remained until 1894, when I retired."

Mr. French still takes a deep interest in pharmaceutical affairs, and has many stories to tell about Australian pharmacy; but we have confined our notes of the two hours conversation to that part of it which traces the life history of "Pharmaceutical Chemist No. 3."

ISPAHAN, IN PERSIA, produced 390,000 lbs. of opium in 1894, the whole of which went to China. The most esteemed Persian opium comes from the district of Yazd, which yielded 68,900 lbs. in the same year.

Some Old Recipes.

THE following recipes are interesting as having been published in 1823 in a book called "Five Thousand Receipts." Mr. E. Andrews, of Ootherstone, has sent us the copies:—

To Make Eau de Cologne.

Take of—	Essence de bergamoth	..	..	..	3 oz.
	Neroli	..	..	..	1½ drachms
	Cedrat	..	..	..	2 do.
	Lemon	..	..	..	3 do.
	Oil of rosemary	..	..	..	1 do.
	Spirit of wine	..	..	..	12 lbs.
	" " rosemary	..	..	..	3½ do.
	Eau de melisse de Carmes	..	..	..	2½ do.

Mix, distil in *balneum marie*, and keep it in a cold cellar or ice-house for some time. It is used as a cosmetic, and made with sugar into a ratafia.

To Make Eau de Melisse des Carmes.

Take of—	Dried balm-leaves	..	..	..	4 oz.
	Dried lemon-peel	..	..	..	2 do.
	Nutmegs and coriander-seeds, each	..	..	..	1 oz.
	Cloves, cinnamon, and dried angelica-roots, each	..	..	..	4 drachms
	Spirit of wine	..	..	..	2 lbs.
	Brandy	..	..	..	2 do.

Steep and distil in *balneum marie*, re-distil, and keep for some time in a cold cellar.

Original Receipt for the Same.

Take of—	Spirit of balm	..	..	..	8 pints
	Lemon-peel	..	..	..	4 do.
	Nutmegs and coriander-seeds, each	..	..	..	2 do.
	Rosemary, marjoram, thyme, hyssop, cinnamon, sage, aniseed, cloves, angelica-roots, each	..	..	..	1 pint

Mix, distil, and keep it for a year in an ice-house.

This is the original receipt of the barefooted Carmelites, now in possession of the Company of Apothecaries of Paris, who sell a vast quantity of this celebrated water.

To Make Vegetable Tooth-brushes.

Take marine marshmallow roots, cut them into lengths of 5 or 6 inches, and of the thickness of a middling rattan cane. Dry them in the shade, but not so as to make them shrivel.

Next finely pulverise 2 oz. of good dragon's-blood, put it into a flat-bottomed glazed pan with 4 oz. of highly-rectified spirit and $\frac{1}{2}$ oz. of fresh conserve of roses. Set it over a gentle charcoal fire, and stir it until the dragon's-blood is dissolved; then put in about thirty of the marshmallow sticks, stir them about, and carefully turn them, that all parts may absorb the dye alike. Continue this until the bottom of the pan be quite dry, and shake and stir it over the fire until the sticks are perfectly dry and hard.

Both ends of each root or stick should, previous to immersion in the pan, be bruised gently by a hammer for $\frac{1}{2}$ inch downwards, so as to open its fibres and thereby form a brush.

They are generally used by dipping one of the ends in the powder or opiate, and then by rubbing them against the teeth, which they cleanse and whiten admirably.

A CASE IN POINT.—Wade: "Do you believe, with these scientific fellows, that disease can be communicated by handshaking?" Butcher: "I dunno; there's the grip."

AMONG all the talk of German encroachments upon British trade it is satisfactory to hear that sometimes the boot is on the other leg. Thus the German Consul at Casablanca, in Morocco, writes home to his Government: "Two articles in which formerly a large import from Germany took place have passed into British hands—to wit, confectionery, of which enormous quantities are consumed, and paraffin-candles. At the same time the price of confectionery in Casablanca has gone down to 31s. per cwt., and paraffin-candles have also been 'cut' in price and lowered in quality."

The Cradle of French Pharmacy.

I WAS in Paris last autumn during my holiday trip, and profited by the circumstance to look up some old pharmaceutical friends there. It was a Friday night, and I was chatting over the counter just before closing-hours with a friend who takes an interest in old pharmacy, when he said, "By the way, have you ever seen the *Marché aux Herbes* at the Halles Centrales? If not, get up early to-morrow morning and you will see something interesting."

I got up early, and pushed my way through a hardworking jostling crowd to the Rue de la Poterie. "Straight up the Rue de la Lingerie till you come to the Pharmacy of the Good Samaritan," were my directions, and there, sure

elder-flowers. Borage, mallow, coltsfoot, &c., are much used by the poorer classes to make infusions for colds and minor ailments for themselves and their children, such as the *tisane de quatre-fleurs* (pectoral tea), &c."

The Monday following I met my friend again, and remarked that it was hardly worth while getting up at 5.30 A.M. to see so little. "My dear fellow," he exclaimed, "do you know that the humble herb-market you have just seen is the very cradle of French pharmacy?"

"Herbalists are not pharmacists," I remarked.

"But pharmacists only date (in France) from the end of last century, and their predecessors, the apothecaries, began largely with herbal remedies. But come into my room," he added. Taking down a bulky quarto, "Do you know this book?" he asked. "It is the '*Livre de Métiers*' of Estienne Boileau, reprinted from a priceless thirteenth-century manuscript kept at the Bibliothèque Nationale, and it contains the



enough, was a bold-coloured bas-relief of the Scriptural subject between the first-floor windows of a quaint old house, below which one read, "Pharmacie du Bon Samaritain, Droguerie and Herboristerie." But in the Rue de la Poterie there was little to be seen but a dozen vendors scattered along the pavement, selling bundles of such plants as fennel, mint, sage, mallow, lavender and tansy to women of the working classes. "I come from Montreuil," one woman told me, "every Wednesday and Saturday, the market being held twice a week. Yes, I grow myself all you see here, but, as you notice, I am only in a small way. Nowadays many of the herbs are imported wholesale from abroad, or from the farthest parts of France."

"And are these all you sell?"

"Oh, no; of course the plants vary according to the season. There are the horse-radish, bitter-sweet, scurvy-grass, white archangel, ground-ivy, lesser centaury, and

first recorded mention of apothecaries in France. Mediæval French is hard to spell out, but you will notice here, 'Sellers of wax and pepper'—that means grocers—and apothecaries owe no toll. . . . If they come to market before Saturday they must pay toll, but not in their stalls, as aforesaid. These are the free crafts (or guilds) of the city, who pay nothing for the King's Watch—that means police-rates, of course—the coopers, all apothecaries, sellers of howls and platters, &c.—the latter are the potters I take it. Now you notice the apothecaries came to market on Saturday, and were classed with the potters in the time of the Crusades, for, let me tell you, Etienne Boileau, before becoming *Prévôt*—or Provost, as a Scotchman would say—of Paris, had fought against the Moors, and shared the captivity of his royal master, Saint Louis. And when you saw the herbalists in 1895 selling on Saturday morning in the Rue de la Poterie you saw a market that dates from 600 years back."

"Your vivid imagination," I replied, "overlooks the fact that the street in question does not date from the Crusades."

"It dates from 1553, but that is not the point. This herb-market has been moved several times, but has always clung round the same acre or two of ground. For instance, in 1722, I find the herbalists had their stalls in the Halle aux Poirées, and the gardeners (who likewise dealt in medicinal herbs) in the Rue aux Fers. But in this Act of Dubois, Prefect of Police, dated 1804, '14 nivôse, year xii. of the Republic,' it states, 'The market for indigenous medicinal herbs will continue to be held in the Rue de la Poterie.' In 1810, it is true, another prefectural edict moved it just round the corner. But when one considers the change of customs, the storms of revolution, and last, not least, the ruthless pickaxe of Haussmann (I speak as an antiquary, not a hygienist) it is wonderful how little has changed."

"But," I interrupted once more, "this has to do with herbalists, and not with pharmacy."

"The complete distinction and consequent jealousy of these two branches of the healing art seem only to date from just before the Revolution, when Louis XVI. founded (in 1777) the College of Pharmacy, of which the present School of Pharmacy (founded in 1803) is the worthy successor. Pharmaceutical legislation in France in the seventeenth and eighteenth centuries is confused and contradictory enough, owing to the deadly rivalry between the apothecaries and grocers. The apothecaries, as Boileau's edict shows, belonged to the same guild as the grocers, and their struggle for independence was long doubtful of result. Here is an engraving of the arms granted to the corporation of grocers and apothecaries in 1629; for they had a banner, and supplied an armed force of the 'train-band' type. This hand holding the scales and the motto 'Lances et Pondera Servant' refers to the stoutly upheld right of the apothecaries in those days to test scales and weights. This privilege was granted them under the King's seal in 1484, and applied to the balances of grocers and woollen-merchants, &c., as well as to those of druggists. There was a 'poids du roi' (pyx or standard) kept at the Chatetet, where the Provost's headquarters and the city prison were."

"And the ships below?"

"Refer to the fact that the spices and drugs came by sea, as was, of course, the case in the Stuart days."

"But this seal shows a serpent wound round a palm-tree, and the motto is 'Versantur His Tribus.'"

"Yes; that is the present seal of the School of Pharmacy. The design and motto date from 1710, I believe. Here are two or three others from medals and seals at the National Library and the Musée Carnavalet (the Paris municipal museum). This one—the apothecary grasping a serpent in one hand, and a flower in the other with the motto 'Artem Experientia Fœcit'—bears the date 1630, and will show you how little distinction was then made between apothecaries and herbalists. This one is dated 1638—a hen pecking among plants, inscribed 'Mihi Victus Ab Arte.' By the way, 1638 was the very year when Louis XIII. edicted that all apothecaries should pass an examination."

"Hardly as stiff as yours at the modern School of Pharmacy in our Quartier-Latin days, probably," I remarked.

"Well, I do not know so much about that. I was a bit nervous, I know, in my time, especially at the oral and practical parts. But, thank goodness, that part only lasted half an hour. This seventeenth-century examination was also divided into oral, practical, and written portions, but the former seems to have lasted three hours, and, as there were nine examiners, I fancy our predecessors' nerves must have been pretty tough to stand the strain. At any rate, the Act seems to have been carried out until the establishment of the College of Pharmacy in 1777, so I suppose it worked satisfactorily. The Practical examination was then termed 'l'acte des herbes.' The herbs, you see, were the great remedies then."

"So the apothecaries so mercilessly held up to ridicule by Molière were really qualified men?"

"So far as examination goes, at any rate. But to return to the herbalists. Here are Acts of King Philip and King John of France. You will recognise the names of the unsuccessful opponents of Edward III. and the Black Prince at Crecy and Poitiers. Philip's Act (1336) instructs the Provost, or Mayor, of Paris to see that former laws are

carried out, commencing, 'Thou shalt compel the said apothecaries, their valets (or assistants), and the herbalists.' King John orders the herbalists to take an oath 'to administer and prepare clysters, plasters, juices, and herbs according to the written prescription of the doctor.' After this, the stormy dispute between grocers and apothecaries throws the herbalist into the background. In 1722 'the herbalists composed a small community, entered by examination as to the properties and natures of plants,' says a contemporary writer. In this little 'Medical, Surgical, and Pharmaceutical Directory,' published in 1776, the year before the College of Pharmacy was founded, the author (a Paris doctor of medicine) gives a list of 120 herbalists in Paris, many of whom are females. He complains that they illegally practise medicine, and 'are subject to no police.' Then comes the law of 1803, which is still in force. Napoleon was a wonderful legislator, to be sure. Prefect Dubois, already alluded to, issues edict after edict in the same year to force the herbalists into compliance with the law. He finishes his proclamation by calling on the commandant of the Paris troops and the gendarmes to 'give physical aid if needful,' which suggests that the work was not always easy."

"And did he succeed?"

"About as fully as his successors. In a witty book, 'Les Français peints par eux-mêmes,' published fifty years ago, the author compares the herbalist to the mistletoe sucking its nutriment from the tree of pharmacy, and 'defying the sickle of the faculty' that endeavours to prune it away. The simile, true when we were in our cradles, will remain so, I expect, when we are in our graves. As the market-woman told you this morning, the working-classes and economical people run to the herbalist for simples, and she might have added for bandages, perfumes, and all sorts of sundries; there is an idea about that they are cheaper; 'the poor man's pharmacist,' I have heard them call themselves. We should not mind if they would not prescribe and sell medicines."

"But are they not forbidden to do so by law?"

"Yes; but you must first catch your hare, you know. Ask the officials of the Disciplinary Committee what they think about herbalists." And so my friend grumbled on till we parted. In an article in the January number of *Le Monde Moderne*, by Ferdinand Faideau, on the "Botany of poor people," the writer says:—"There was formerly money to be made in the trade of medicinal plants, but nowadays simples have fallen on evil days." "Tisanes are dying, tisanes are dead, sir," the herbalist will tell you with a saddened face; "killed by the pharmaceutical specialities, the pills, capsules, lozenges, and elixirs with high-sounding names. When a new epidemic breaks out the doctors, unprepared, order herbal infusions and business looks up. This happened in the winter of 1889, when the influenza made its first appearance at Paris; but soon the malady becomes better known, a general treatment is prescribed, two or three new pills or lollipops are got up and pushed by extensive advertising, and our herbs may dry in our garners till the next alarm is spread."

CAMPBOR BROMIDE AND SALOL.—M. Pellaus records that these substances liquefy when mixed together as powders.

THE Shanghai trade returns, our Consul states, do not at all bear out the idea that British trade is being driven out of the neutral markets of the world by German and other foreign competition. "In 1882," he states, "the proportion of the total off-take of the Shanghai market supplied by Great Britain or her colonies was 79 per cent., in 1894 it was 76 per cent., and last year it was again 79 per cent. From all I can hear there is not the faintest reason to suppose that in ordinary mercantile business we are in any more danger from German competition than we were twenty years ago. Competition there is, no doubt, and it is natural and inevitable it should be so, but it is mostly confined to the minor articles of trade such, for instance, as needles, matches, dyes, lamp-ware, &c. In all the great staples we more than hold our own. Looking to the future, as far as one can see, it is not continental but oriental competition that we have to fear—the competition, in short, of China herself."

Practical Notes and Formulæ.

TOILET-CREAM.

Blanched almonds, sweet	3ij.
Borax	5ss.
Almond oil	3ss.
Quince-seed	3j.
Rectified spirit	3iv.
Water, to make.. ..	3xxxij.

Rub the almonds to a smooth paste with a portion of the water; then add the balance of water gradually (making an emulsion of almonds); then strain, and add the quince-seed. Let stand, with frequent agitation, for twelve hours, and strain; then dissolve the borax in 1 oz. water, add the oil, and shake and mix with the mucilage of quince-seed; add the spirit, and shake; then flavour with otto of rose or oil of ylang-ylang.

This yields an elegant milk-white toilet-cream that is an excellent emollient and dries quickly; or, if it is desired, 1 oz. of glycerine can be added in place of the oil and borax. If it is too thick it can be thinned by adding more emulsion of almonds.—*Spatula*

WATER-SOLUBLE PETROLEUM OIL.

WHAT is termed a water-soluble petroleum oil has been placed on the market in Germany, and is said (*Phar. Zeit.*) to consist of a petroleum oil to which has been added a small quantity of ammonium oleate. This salt is decomposed on heating, and the emulsion formed by its aid is then broken up.

CHANGEABLE MEDICINES.

MR. J. U. LLOYD has called attention in the *American Journal of Pharmacy* to the difficulty of keeping certain medicines up to the pharmacopœial standard, and the consequent necessity for some elasticity in the official requirements. He gives liq. sodæ chloratæ, liq. plumbi subacet., and acid. sulphuros. as examples of medicines which begin to deteriorate as soon as they are made; ammonia solutions as examples of those which it is extremely difficult or expensive to produce of exact strength; and points out that there is a third class of medicines, such as bleaching-powder and caustic potash, which are more largely used in the arts than in medicine, so that few if any manufacturers consider medical requirements in producing them; therefore, Pharmacopœias should be content with what can be got in commerce. There is much common sense in Mr. Lloyd's remarks, and they deserve the attention of Pharmacopœia authorities.

MILK-STERILISATION.

It is generally assumed that milk cannot be sterilised unless it is brought up to the boiling-point and maintained at that for several minutes. Dr. R. G. Freeman, of New York, opposes that idea, and at the American Pediatric Society recently presented the result of his investigations in reference to the thermal death-point of the *Bacillus tuberculosis*. He stated that 68° C. kills all bacteria when exposed to this degree of heat for ten minutes.

GENUINE BAY-RUM.

MR. R. W. ELLIOT, of Toronto, during a recent visit to the Island of St. Thomas, one of the Danish W.I. islands, saw the process of distilling bay-rum as carried on by Mr. A. H. Riese, a pharmacist of the island, who combines with his business the manufacture of bay-rum. The process consists in placing a quantity of bay-leaves in a copper still, adding some St. Croix rum, and drawing over the product, which is not, however, yet sufficiently impregnated with the oil; the process is, therefore, repeated with a fresh quantity of leaves. The rum thus loses much of its amylac constituents, though still retaining its ethyl acetate. To this the odorous principles of the bay-leaves impart a delightful and refreshing fragrance, which any artificial compound can only basely imitate. We extract this information from the *Canadian Pharmaceutical Journal*, but we had information from Mr. Riese a few years ago to the effect that he uses the berries as well as the leaves of *Myrcia acris*, and that the peculiar fragrance of true St. Thomas bay-rum is largely due to this addition. It is as well that compounders should understand that the

finest bay-rum cannot be made by dissolving essential oils in spirit, and Mr. Elliot's observation confirms this. We quote a formula by Edel, given in the *Spatula* for "superior bay-rum," the product of which should be compared with the genuine water-white spirit distilled in the West Indies:—

Oil of bay	3vj.
Oil of orange	5ij.
Rectified spirit.. ..	3xlviij.
Water	3xlviij.
Precipitated phosphate of calcium ..	a sufficiency

Mix the oils and spirit, add the calcium phosphate, and shake; then add water, and shake thoroughly and filter. Colour with 90 proof rectified Jamaica rum or with a slight amount of caramel.

SAPONIN EMULSIONS.

PURE saponin is now made in fair quantity in Germany, so that it is available in place of senega and quillaia for making emulsions. The following are examples by Schazki of the proportions of various materials required to make satisfactory emulsions:—

(1)

Ol. ricini	3ij.
Saponin.	gr. ivss.
Aq. destillat.	3x.

(2)

Ol. morrhue	3iij.
Saponin.	gr. iij.
Ol. menth. pip.	gtt. ij.
Aq. destillat.	3iij.

(3)

Copaibæ	3iiss.
Saponin.	gr. iiiss.
Aq. destillat. ad	3vj.

(4)

Creosoti	3xxx.
Ol. amygdal.	3iiss.
Saponin.	gr. i.
Aq. ad	3iij.

The saponin should be dissolved in as little water as possible, and triturated in a mortar with the oleaceous body, and the rest of the water added gradually. Pure saponin is not poisonous, and in the above-mentioned quantities is therapeutically inert.

EIGLER'S HAIR-CURLING LIQUID.

Carbonate of potash.. ..	3j.
Powdered cochineal	5ss.
Solution of ammonia	3iij.
Glycerine	5ij.
Rectified spirit	3vj.
Rose-water to	3viiij.

Mix and filter.

Moisten the hair. Adjust loosely when it curls upon drying.

EIGLER'S DANDRUFF CURE.

Caustic potash	gr. vj.
Carbolic acid	gr. xxv.
Lanolin	5v.
Cocoonut oil	5iv.

Mix.

The head should be first washed with hot water and soft soap, then washed clean with hot water. The pomade should then be rubbed into the scalp.—*M. B. Druggist*.

CORN-CURE.

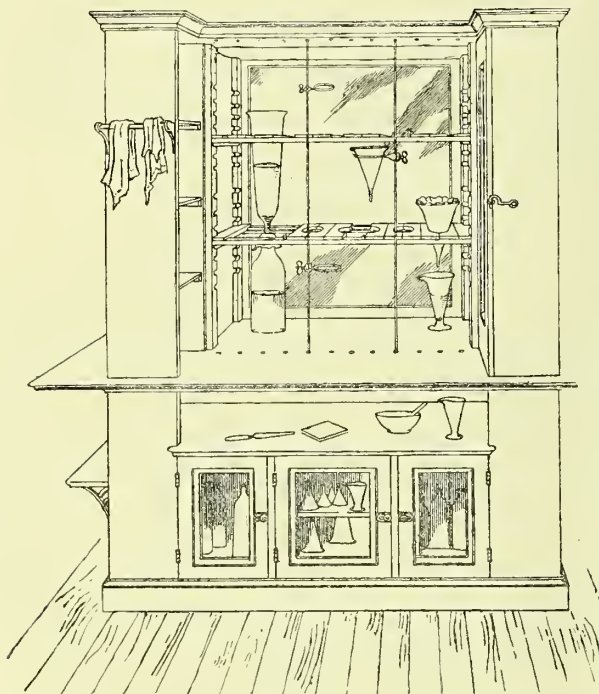
Caustic potash	5j.
Tincture of iodine (1 in 10)	5i.
Glycerine	3iij.
Water to	3j.

Mix.

To be applied with a camel's-hair pencil every night, and in three or four days the corn disappears—it is said, but we expect that means soft corns.

Apparatus for Retailers.

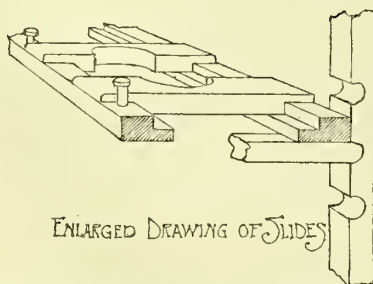
MANY retailers whose pharmacies are not too roomy in the back premises find it disadvantageous to embark upon extensive manufacturing operations because of the difficulty of keeping everything in order without sacrificing more space than they can spare. For such, and even for large retail businesses, Mr. W. C. Burns communicates to the *Pharmaceutical Era* particulars of a manufacturing case which should be useful.



This is the case as it stands, and in which a dozen or more preparations may be under way at the same time and in no wise interfere with each other. Maceration, percolation, and filtration may all be conducted simultaneously.

The case is an extension of the dispensing-counter, which is another advantage, Mr. Burns thinks, as one can attend to the regular dispensing business and at the same time not lose sight of galenical operations.

The construction of the case is fairly represented in the large illustration, but Mr. Burns has unfortunately omitted those details of measurement and construction which are so important to those who may desire to adopt his idea. It will be seen that the case is glazed at the back, and open at the working side. The shelving is the most important feature, and the details of it are exhibited in the next sketch.

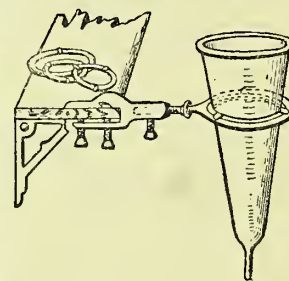


The slides are made so as to be adjustable to any size of percolator or funnel; the frames are made so that they may be raised or lowered as required; two iron rods are put just

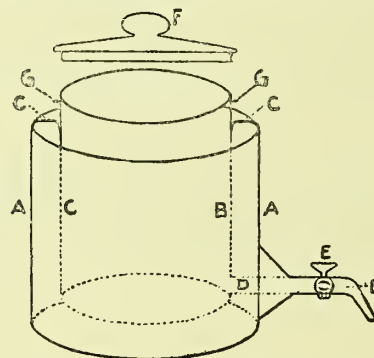
in front of the slide frames; on these any number of rings may be placed, and they may also be moved to any position across the case desired, as shown by the holes in the cut.

To the right is a closet in which are kept all the finer instruments and utensils; to the left are shelves to be used as desired. Underneath the counter is a shelf where all soiled utensils are placed until they are washed. Below that are three compartments fitted with glass doors; the two side ones are used for storing the percolators and receiving bottles; one side contains those of the metric system, the other the apothecaries'. The centre one is set apart for the frames; it is divided by a shelf, the smaller frames above, the larger ones below.

Another idea for the percolating department we get from the *Western Druggist*. It is quite a common experience in American pharmacies to do all the percolating along the walls of the working room, the percolators being supported on the shelves; but when stock increases with business, and no more room is available for the percolators, these have to be consigned to the invalid department, and manufacturing chemists supply what they were wont to produce. Mr. Emil Reyer, of South Bend, Ind., objects to this course, and has recently devised an iron support or bracket which may be very securely fastened to a shaft, as shown in the illustration, by means of two set-screws. In the hollow arm a projection of the ring is enclosed, and may be given any position from vertical to horizontal by means of the set-screw which holds it firmly. The ring proper is fitted with a series of smaller rings, so that an opening of any desired diameter may easily be attained for any vessel not exceeding the usual dimensions. The bracket has been patented by Mr. Reyer, and is sold for a dollar.



From *Merck's Report* we take the annexed drawing of an apparatus for making ointments, designed by Mr. W. C.



Alpers, Bayonne, N.J. It consists of an ordinary tin kettle (A), about 8 inches high and 8 inches in diameter. In this kettle a second one (B), of the same height, but of smaller diameter, is fitted at about 1 inch from the bottom, being held in position by small pieces of tin (C, C), which are soldered to both vessels. From the inner (smaller) kettle a tube (D), about $\frac{1}{2}$ inch in diameter, leads through the outer one, ending in a narrow tapering spout (E) with a downward bend and a stopcock (E). The inner kettle can be tightly closed by the cover (F). Mr. Alpers was moved to devise this apparatus when petrolatum came into general use, and he experienced difficulty in putting up neat and clean packages. In the outer (larger) vessel water is put; in the inner (smaller) one the petrolatum. On applying heat, the salve soon melts and can be drawn off through the spout into boxes or bottles. There is no waste or dirt; interruption of the work has no detrimental influence; and if it should become necessary to stop entirely before the contents are

exhausted, the whole apparatus can be put aside for a day or longer, and the work resumed later. If perfumed petrolatum is wanted, the essential oils may be added to the molten mass, stirred well, and the finished article drawn off. The apparatus is also good for filling castor oil during cold weather, and obviously may be utilised for many "filling" purposes. As to its use in making ointments, Mr. Alpers says he soon found that simple cerate and ointment could be quickly prepared with its aid by putting the wax and lard into the smaller pot. On first trying to make resin cerate in it he found that the small particles of impurities in the resin stopped up the narrow outflow. He then tied the resin in cheese-cloth, together with a big marble, to keep it down, and fastened the cloth, folded like a filter, to the pins (G, G). When all the ingredients of the various salves have become liquid, they are allowed to run into a suitable vessel and cooled according to the directions of the Pharmacopœia. Carbolic ointment, benzoated lard, and camphorated oil can also be readily made with the apparatus. With its aid Mr. Alpers also prepares a very fine zinc ointment. He puts the lard into the pot, liquefies it, in summer always adding 5 per cent. of wax. The zinc oxide is placed in a large mortar put so that the spout of the apparatus will empty into it. After triturating the oxide carefully, the lard is allowed to run into it, stirring constantly. A still more perfect salve is made by stirring the oxide with some almond oil previous to mixing it with the lard. In this case a corresponding quantity of wax must be added to prevent the ointment from becoming too soft.

At the Counter.

J. S. S. contributes the following specimens from the Midlands:—

1 acid 1 rile [1/2, ess. pennyroyal]
Heper kuku han a wine
Half a nounce ilipika
Peneth biter alis
1 rake nnt
Tinsure of eatcicumb
Yellowpecilakin
Redfecite
Prezeliten
Farmereity
Salverlateny
Elicks of vitrol

Haneyseeds
Schupnel [cochineal]
Hardiron [iodine]
Peneyth linnetelectress
Pillow ruff
Hanttebeles pils plese
Asmethatic vinegar
Cederica acid
Ant bill pills
Sweet neuter
Conferated spirit
Queenann

"CHOW CHOW" (China) sends us the following items:—

Enter Chinese gentleman, producing an empty pot of Singleton's golden eye-ointment. "Diger yah uoong yer vah?" ("Have you got this medicine?") Chinese assistant, interpreting for English chemist, tells him it was made three hundred years ago. Customer misunderstands and thinks the ointment is that age. Chinese gent then shakes his head, grins, and says to English chemist, in broken English, "Ah yah! too muchee old! my thinkee have makee spoilum" Chemist then explains it is the formula that is so old, and not the preparation.

"Absent Salt," "Enoch's Fruit Salt," "Preceptitity Oniment," "Ihodohorum," is from a Japanese customer.

Night-bell, midnight. Coolie brings up a letter from customer, requesting him to send a dose of castor oil, with directions how to take it. The irate chemist gives coolie the castor oil, and writes across the order:—"Swallow it." The next time he saw his customer, he asked him how he "took it." Some would take it as impertinence.

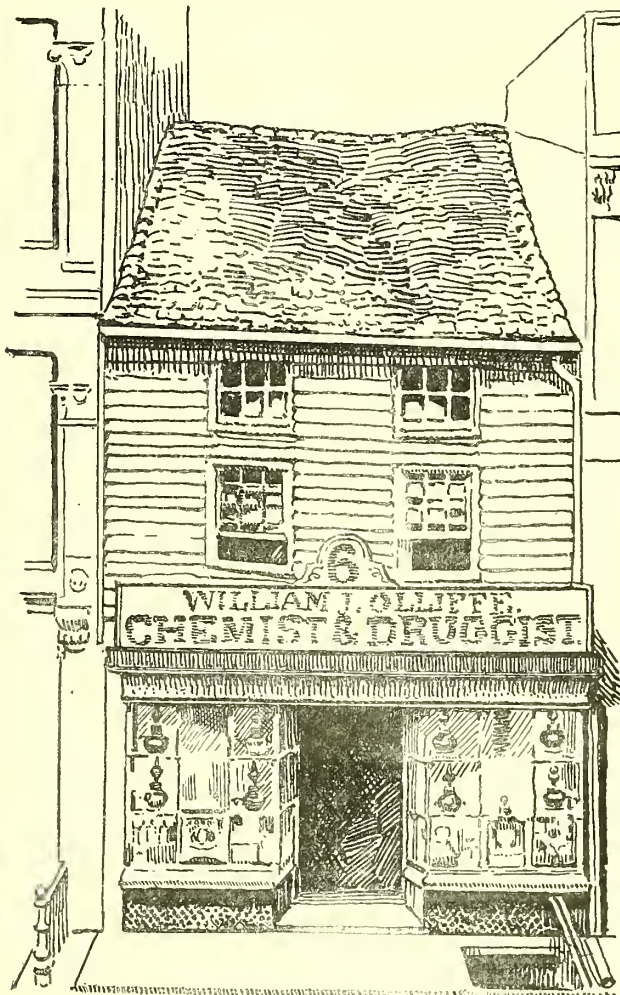
This is an order sent by a Japanese gentleman:—"Notice for to buy medicins. I want to buy medicine to use to wash off rough sick of mouth's inside by fever it with sick (take cold) and for to can do go to stool its don't go to stool nearly days by sick, parhabs its use medicine more, and these 2 medicins are to take for me all, but it is not want too many its to try for sick."

The following order was entrusted to a well-known pharmacy in Regent Street:—"Take wax, oil of bever, cod, majoram gentle, and oil of cofas of each alike quantity. Mix it into an ointment and put to it a little musk."

New York's Oldest Pharmacy.

THE *Pharmaceutical Era* describes the oldest drug-store in New York, No. 6 The Bowery, which was founded in 1805 by Dr. Walters, an English physician. He imported the fittings from England, and from the description of them and the appearance of the outside of the shop we judge that it is a typical English pharmacy of the good old-fashioned kind. It has remained practically unchanged during the century, except that there has been a succession of proprietors. "William J. Olliffe" is now the sign name, it having been owned by father and son, and the widow of the latter is the present owner.

The store is run on conservative lines. Not until a year



ago was a soda-fountain introduced. Never has a cigar or a stamp been sold over its counters. It has never had a telephone, nor has it marked the prices of goods in its windows. The result is that while other drug-stores on the east side of New York are many of them running at a loss, Olliffe's is as prosperous as ever. The *Era* mentions that the building is one of the few remaining frame houses in New York. Very quaint it looks, crowded between two towering modern business blocks. The old-fashioned gable-roof slopes down comfortably towards the street, contracting the pair of third-storey windows till they resemble half-closed eyes. The house is just wide enough to give space for a broad entrance in the middle with a handsome show-window on either side. Each window is ornamented with four old-fashioned bell-shaped show-globes, one bottle rising out of the stopper of the one beneath.

Philosophy of Cutting.

I MET Henderson the other day, writes a contributor, who, you may remember, is a remarkably ideal pharmacist (see *C. & D.*, vol. xlv., page 492). I had not seen him for a long time, and was rather surprised to hear that he had come into a small fortune in the interval, and had started a cutting-store.

"I wish you could come down and see me," said he. "My stores are in Princes Street, and I have got something new to show you."

"Right," said I; "I will look in one evening."

Accordingly I went, and, as he was busy, I hid myself behind the dispensing-counter until he had time to speak to me. There were there the same old arrangements for economising time and labour, for filling prescriptions quickly, &c., and I was busy looking at a few of the things which were new to me when Henderson bowed out a customer with a fascinating smile. Then he came to me.

"I am tired of this 'biz,'" said Henderson. "Come upstairs and have a smoke."

We were soon enjoying a very good Havana, and something along with it, and I ventured to say to Henderson that these Havanas did not come out of the profits of a cutting-trade.

"Oh, yes, dear boy, they do," he replied. "It is one of the greatest mistakes to think that a cutting-business means small profits. The public don't know the value of things, and if you take advantage of that failing you can get a very good profit indeed. Now, there is my Rhodesia soap, which I sell at 5d. a cake, and it is done up very nicely in satin-paper, printed in gold, and all that sort of thing. Of course, everyone imagines they are getting an eightpenny cake for 5d., but it is only a threepenny tablet with a ha'p'orth more scent in it, so the profit is half-and-half. Then I have a very nice shaving-cream in enamelled-tin tubes, nicely labelled, which I sell at 1s. 1d. Of course swell gents take that to be an eighteenpenny tube—it is a shilling's worth. Then for my own specialities I take about double prices, and customers consider they are getting really good value."

"But really, Henderson," said I, "is this honest? You say you do things at cutting prices. How can you reconcile your conduct with that statement?"

"Don't be strait-laced, Smith. Do you ever read the *Lady's Pictorial* or the *Queen*?"

"No."

"Well, if you did, you would find there that 3s. 6d., 5s. 6d., 10s. 6d., and so on are the common prices for complexion-lotions, and I consider that when I charge 2s. 6d. for my Rhodesia lotion, which happens, of course, to be good old-fashioned milk of roses, my swell customers consider they are getting it a bargain. It is as big as the half-guinea advertised stuff, and just as good. Now, if I were to charge you 10s. 6d. for 8 oz. of carbolic lotion you would say that was a swindling profit, but if I add some cochineal and saccharin to it, put it up in 1½-oz. sprinkler bottles, call it Rhodesia dentifrice, and charge 2s. 6d. for it, you say, 'How nice!' No, Smith, you are all wrong about profit. Like accuracy, it is a relative thing, and I regard cutting as one of the phases of pharmacy. Once upon a time our forefathers in the craft did scarcely anything all day but make fresh infusions and boluses. Of course they grumbled when they had to turn out small silvered pills, and mixtures to be given by the tablespoonful. Their successors grumbled when liquid extracts came in, and began to knock out the fresh infusions, and when some ingenious Americans came along with compressed tablets they grumbled once more. In fact, every innovation means, to the unadaptable man, the ruin of the trade, but, as a matter of fact, pharmacy nowadays is just as good as it was fifty years ago, and as profitable. I put cutting in exactly the same place as liquid extracts once were. The thing is here—we have to make the best of it. If people will have the 1s. 1½d. patent at 9d. or 10d., well, they can get it at my shop, and I will try to sell them something else upon which I get a better haul, but I am not going to sell my own specialities at a trivial profit. They are made with my brains, and it is my place to see how much I can get for the product. The universal sin of the drug-trade is pandering to cheapness. Suppose you go into some shop

for a 6½d. tie, ten to one you go away better pleased with a 2s. 6d. one. There is not much difference between the two—not 2s. worth of difference—but until the tie is done you feel perfectly convinced that it was worth the half-crown. So it is with my customers, and their toilet and medicinal specialities. Poor people don't come into this shop. Most of them can afford to spend 2s. 6d. as easy as 6d., and I make it my business to get the half-crown if I can. Did I ever tell you, Smith, about an old governor of mine who gave club customers 2d. in the 1s. off all goods bought at his shop? No? Well, this will show you that the craze for cutting prices is not universal. We had about two hundred customers from that club, and we had three of them who asked for the discount.—Won't you have another drop? Nor a smoke? Well, good-bye, old fellow."

As I left the store I saw Henderson smile to a pretty girl who came in. She wanted something to remove hair from her mother's chin, and, as luck would have it, "two-and-six" were the last words Henderson uttered in my hearing.

The Art of Embalming.

By MUMMY.

IN these days of competition in the drug-business a hint how to turn an honest penny, may be acceptable to those of the craft who are not horrified at making the proverbial coin out of dead bodies. After the first shudder has passed over your readers, I should like to draw their attention to the lugubrious "art of embalming," not as practised by the ancient Egyptians, but to the method now generally adopted in Europe, which entails less trouble, requires no special education or appliance, and gives equally good results.

In the South of France most of the wealthy visitors who die there are embalmed and sent to their respective homes for interment.

When the medical man who has been in attendance considers that the friends of the deceased are in good circumstances, and willing to show their esteem for the departed by payment of a "big fee," he immediately communicates with them, and, being duly authorised by the family (and also by the authorities, without whose permission the "corpse" cannot be touched), proceeds to business.

By appointment, the doctor and chemist meet at the mortuary (in hotels the proprietors insist on having the body removed to the mortuary at night), and, in presence of M. le Commissaire de Police, commence the operation. This consists of making a longitudinal incision in the left side of the neck and dividing the carotid artery.

After tying one end of the artery the nozzle of a special syringe, which may be procured at any instrument-maker's, is inserted, and a small boy is set to work to inject the solution. The quantity of liquid required varies according to the size of the corpse; usually from 4 litres to 6 litres is necessary for an adult. When the arteries are filled the instrument is removed and the other end of the artery tied. Nothing now remains but to sew up the orifice and hand the body over to the undertaker, who attends to the toilet arrangements. A little colour is given to the cheeks by means of carmine.

In case an embalming-syringe is not at hand, the operation may be performed perfectly with an ordinary enema-apparatus.

The solution for injection may be made by dissolving in 6 litres of hot water 200 grammes (about 7½vj.) of chloride of zinc and 2 kilos. (4½ lbs.) of salt. The solution should be shaken when required for use. Formerly arsenic and corrosive sublimate were employed; but in France, for obvious reasons, the law will no longer permit the use of these antiseptics.

The *séance*, which usually occupies about three hours, costs the family of the deceased from 40% to 120%. Personally, I have never demanded more than 80%, but some of my friends have charged 120%, and have received that sum. Of course the doctor and chemist divide the spoil. If through the doctor's advice the family decide to have the embalment, he gets the lion's share. On the other hand, if the chemist has more influence with the friends, and invites the doctor to assist him, he (the chemist) retains two-thirds of the fee.

From these few notes it will readily be seen that the "art of embalming" is not so difficult to acquire as photography, to which many chemists are turning their attention, and it must be granted that it pays a deal better, although the operation may be less interesting.

In order not to shock one of your contemporaries, who discovered that chemists in England were making huge fortunes by selling twopenny drinks—probably "corpse-revivers"—I would mention that although a big fee is demanded for embalming a body, which, at first sight, appears altogether out of proportion to the intrinsic value of the drugs employed, or the skill of the operator, yet more than one doctor has lost an arm through pricking himself with the knife while at work and getting the poison into his system.

A Bachelor Chemist's Housekeeping.

IT was not without some misgivings that I took possession of my small suburban business (the agent described it as a "veritable gold-mine"), for until I came to enter upon it I had not given a thought as to how I was to arrange about household duties. I was not much over 22, and my only experience in housekeeping had been acquired by spending a month on a houseboat. I fancy I had an idea of living on tinned delicacies, but I soon found these delights get commonplace on closer acquaintance with them. My first act was to look through a grocer's catalogue and order in anything I thought would be useful. From the ironmonger I got an assortment of kitchen utensils which I have since been told reflect credit on my selective powers. Lastly I got a cookery-book from the bookseller, and then I supposed my outfit was complete. I was much impressed by the off-hand manner in which "Mrs. Beeton" ordered pints of cream and bottles of wine, but it was always possible to omit the expensive ingredients.

A few months' practice made me a proficient cook. I found my dispensing knowledge a great help. I used a gas-oven, and grew very interested in many experiments. I had a pyrometer fitted in the oven-door with the intention of



reducing my cookery to a science. My business in the meantime was growing so that I began to think of getting some help in my house-duties; maybe, too, I was getting a bit weary.

I advertised for a housekeeper, and decided on one whose references would fit her for an angel's berth (if, indeed, references are required for such a post). She was of course a total abstainer (I am told they always are), but when I came home one Sunday night and found her helplessly drunk on the stairs my faith was somewhat shaken.

As the stairs incident got to be repeated rather frequently, I thought we had better have a change. With some difficulty I got rid of her. A friend here stepped in and suggested a maidservant. The proposal took my fancy, and it was not long before one was installed. I paid a year's licence and provided the yearly suit of clothes we had agreed on. One evening after business hours I asked my factotum to take out a bottle of medicine. He demurred, as "it wasn't his work," but reckoning myself the boss of the show I was forced to let him go at the end of the month.

Now I bethought myself of a woman who was a customer for pennyworths of pills and hair-oil. We struck a bargain that she was to come each morning at 7 o'clock and stay half the day for a small weekly sum augmented by tea *ad libitum*. I have heard of tea-drinking sometimes being akin to madness, but I never thought that a woman could drink tea all day long. Anyway, I didn't grumble, as I found she was by no means a connoisseur in tea, so by laying in a stock of a cheap sort (it came out at something under 1s.) we managed for some months till a paralytic stroke laid my tea-drinking charwoman low, and I was again left alone.

And now I began to think whether I could not improve on this unsatisfactory system. My business needed all the attention I could give it, and sitting alone in the evening I got into the way of recalling my boyhood's days. Curiously enough, my fancies always seemed to come to a focus on one girl's face in those reveries. It happened that shortly afterwards I found myself taking a holiday in my native village. The story of what has occurred between then and now is intensely interesting to a few people, but not perhaps altogether new. Anyway, there is to be a wedding in that village on August Bank-holiday, and I am assured by all my friends that I shall find I have at last solved my housekeeping difficulties.

Springtime.

THE glad springtime has come again, and evermore it brings

The poets singing each his sweet refrain;
And while some pipe of daffodils, or various kindred things,
The pharmaceutical warbler racks his brain.
He cares not for the swallow's flight, nor scent of eglantine,
Nor the music or the laughter of the rills,
For his garb of aloes smelleth as he woos the Maidens Nine,
And manipulates his purifying pills
(With a manner most erratic,
And an attitude ecstatic,
He thinks on rhymes for "purifying pills").

He heeds him not the hackneyed song of vernal buds which tell
Of slum'ring blossoms and the hidden flower;
Nor turns he willing ear towards the feathered songsters' swell,
Nor raves of woodland glades or shady bower.
But deep down in the cellar whence proceed the odours balmy
Of the sassafras and sarsa on the boil,
His soul with anguish racketh, and his lineaments look stormy,
As he tries to find a word to rhyme with "coil"
(In a manner quite pathetic
He regards the coil magnetic,
But quite fails to find a word to rhyme with "coil").

His thoughts are not of sparkling brooks or banks of violets,
Nor hears he much the lowing of the kine;
His eyes are closed to earth-grown green or dying sun which sets
Behind the hills 'mid tints of blood-red wine.
For his thoughts and hands are deep intent on mixing cream
Of tartar
With the sublimated sulphur—bound to sell;
And he puzzles and he ponders, and his precious soul he'd barter
Could he only find a word to rhyme with "mel"
(So, his appetite quite failing,
He drinks effervescent saline
Till he dies—and finds a word to rhyme with "mel").
W. C.

THEY pressed forward and closely examined the Röntgen photograph of the new baby. "His liver," they said, "is the image of his father's, but he gets his lungs from his mother's side."

PROPRIETORS OF PROPRIETARIES.

PARENTS who wish to know what to do with their sons and who would like to put them on the road to fortune, should bring them up to the profession of the popular speciality manufacturer. How to accomplish this we do not profess to know; but it seems easy when you see it done. No apprenticeship is needed, nor is genius an absolute essential, though it happens by an odd coincidence that most of the proprietors we know, and to whom we shall refer anon, are geniuses. It may be that a good formula is useful to work with—indeed, we should say that, other things being equal, the man with a good article is a little more likely to succeed than the man with a bad one; but we venture that opinion on a very slender basis of knowledge. A vein of originality helps in most cases. Too much may be a drawback. It is cheaper to convey a fact to the public mind in the old-fashioned methods of speech than by the employment of the most brilliant rhetoric. In our judgment, Mr. Swinburne as an advertisement-writer simply would be dear at 150*l.* a year; we should be inclined to give the preference to Mr. Austin, and perhaps the indiarubber-poet from Silvertown would be better than either. At the same time, we can lay it down as an axiom—and we do so with much satisfaction—that no great success has ever yet been achieved by mere slavish copying of somebody else's ideas.

We do not wish to say anything that would add to the difficulties of our Foreign Office, but truth forces from us the assertion that British specialities—especially in the medicine line—are the most *bonâ-fide* and genuine successes in the world. A great many of the well-established ones have grown up to maturity in the most legitimate manner. They have acquired a local, and then a gradually-extending reputation in the first generation; a new owner has pushed them a little, and the trade has become larger and the article better known, and there the things stand, like the Tower of London smiling at the annual and constantly varying novelties of Olympia.

The American patent-medicine man often works on a different system altogether. He first decides on something novel in the way of advertisement. Then he calculates how much money he can get together, and how much newspaper credit he can rely on. Next he considers what sort of an article his new idea in advertising is best adapted for; then he designs his label, and when everything else is ready he engages a druggist's assistant to compound and put up his stuff. When he finds that an expenditure of \$50,000 will give him a net profit of \$5,000, he at once asks himself why he should not spend \$100,000 and clear \$10,000; and he does not take long to weigh that problem in his mind.

The French specialité manufacturer is the funniest specimen of the class. He mixes something with wine or syrup, and then in the most perfect good faith writes himself down a great discoverer, a benefactor of his race, and one of the glories of his native land. Every pharmacien and a great many doctors are the owners of specialities in France, but not one in a hundred spends much money on them or makes much out of them.

The German apotheker has not much chance in this line. His paternal Government watches any furtive attempts he may make at starting a proprietary article, and if it acquires the least degree of popularity has an analysis of it made and published with an exact estimate of its cost, as if that had any relation to its value.

Whatever else may be said of these proprietors, it cannot be denied that they are an exceedingly interesting body of men. Whether they are as good and great as some of them

claim to be, or whether they are as sinister and selfish as some of our correspondents represent them to be, their records are a perennial attraction, for they present a story of pluck and persistence which in every walk of life is sure to secure its admirers. We do not pretend to give those records here and now; our present project is to make a contribution towards the history of some famous articles.

BARCLAYS.

BARCLAY & SONS (LIMITED), 95 Farringdon Street, occupy a part of the site where once stood the old Fleet Prison. The business was carried on in large dark premises almost opposite up till 1870, and literally from time immemorial, for the present managing director, Mr. George R. Barclay, does not know when his ancestors came into the patent-medicine trade, nor under what circumstances. He knows that his father, his grandfather, and his great-grandfather all reigned one after another at No. 95, but he cannot go farther back. It is curious to note that when the firm were driven from one side of the street to the other by the ruthless chase of the Improvements Commissioners they were allowed to carry their number with them. We thus find Farringdon Street numbered something after the following disorder—1, 2, 3, 4, 5, 95, 96, 97, 20, 21, and so on; a condition of affairs which would certainly not be tolerated in police-ridden Cannon Street.

The firm was converted into a limited company in 1888, a number of its old customers then acquiring some interest in its prosperity. Since then Barclays have developed very largely their sundries trade, and latterly their business in photographic goods. Mr. G. R. Barclay has figured very prominently in the recent anti-cutting movement. He threw himself into it energetically from its initiation, and is very much in earnest about it.

Messrs. Barclays' own proprietaries include "Mrs. Johnson's American Soothing-syrup," Dredge's "Heal-all," and Sweeting's "Toothache-elixir." Jane Johnson, of 28 York Place, City Road, sold the first-named article to them in 1831, and the other two appear to have been acquired by the firm by purchase in the course of their history. It is probable that they may have had some chance of securing proprietary rights in "Cockle's pills," for it appears from their archives that the original maker of that medicine appointed them his sole agents. They held that position for twenty-five years, during which period it may be supposed that they did something towards laying the foundation of the reputation which Mr. Cockle's combination still enjoys.

BOVRIL.

TEN years ago the word "Bovril" did not exist, and it was impossible to get a cup of beef-tea at a bar or refreshment-room for love or money. What is more, no one thought of asking for it. To-day—well, who does not know bovril? But what is it? How did it originate? Who was the man who caught the happy idea? These were the questions that our representative went to the Bovril offices in Farringdon



Mr. G. R. BARCLAY.

Street to get answers to. Of course, we knew that Mr. J. Lawson Johnston is the man who has made "bovril," and we believe that THE CHEMIST AND DRUGGIST was the first paper to make it known that Johnston's fluid-beef was to be a popular drink. The fact is recorded in our issue of August 14, 1886, and it was given to us in the Brighton Pavilion over a cup of tea with Mr. Johnston. He was exhibiting his fluid-beef there under the auspices of the British Medical Association, and, being fresh from Canada, he thought that its use exclusively as a medical comfort was too narrow for such a good thing. And the gifted C. & D. representative was so enamoured of the bar idea that he devoted four lines to the matter!

The Mr. Johnston of ten years ago is the Mr. Johnston of to-day, but his hair is now as white as Canadian snows;



MR. J. LAWSON JOHNSTON.

withal, he is physically vigorous and commercially active. He remains the guiding-power of Bovril (Limited), although he has vacated the presidential chair in favour of Lord Playfair, and his friend Mr. Andrew Walker has become managing director. For bovril was entirely Mr. Johnston's creation. Since he was a lad the study and production of foods have been his speciality, and it

was as a food-specialist that—immediately after the Franco-German war—he was deputed by the French Government to proceed to Montreal to supervise the production of victuals for the French army, the new Republic having determined to lay down three years' supplies in all the forts and army-depôts of France. Mr. Johnston superintended the labours of about 600 men—Frenchmen—and he noticed the painstaking care with which they separated from their *consommé* every particle of solid matter, including the natural albumenoids. The result of the care was a comforting, stimulating, but not nourishing, soup. Mr. Johnston thought it was terrible waste, and set himself to better it. This was how he put his research to our representative:—

"These men were doing just what Liebig advised when he suggested essence of meat, and to give you an idea of what that is, let me tell you that in making beef-extract the lean meat, chopped small, is macerated in cold water for a certain time. The water extracts some of the nourishing constituents—i.e., the soluble albumenoids and most of the stimulating substances—the nutritious elements being practically insoluble. Well, the infusion would not be a bad food if it were evaporated right down, for it contains albumenoids; but these are separated as soon as they coagulate on heating, because the extract would not keep if they were left in—that is, without the addition of preservatives."

Our representative remarked here that he had seen extract of beef made, and considered Mr. Johnston's statement to be a fair one.

"Well, then," Mr. Johnston proceeded, "as a food essence of beef is to the system like a poker to a fire—it will make it burn up bright, but it is not fuel; the essence is not food. What I set myself to do was to add to the extractives the nutritive substances removed."

"Then did you take the marc, dry and powder it, and add to the essence? I have the impression that I have seen that stated."

"No. That is, perhaps, a logical outcome for one who has the idea that beef is always 1s. a pound; but we go where it is a ha'penny a pound—to the Argentine, where our extract is made. There we take beef, freed from gelatine, tendon, fat, &c., and by our special process desiccate and pulverise it; then send it home. I have two sons in the Argentine who supervise the scientific work for us. All the mixing is done at home in our factory at Old Street. By

the way, we are building a new place, which, I am told, will be the largest factory of the kind in this country. We find it advantageous to use a blend of extracts—North and South American with Australian—that giving us the flavour and the percentage composition which we regard as our standard. Mr. Harkness is our supervising chemist, and no batch is mixed or bottled until he sees that it is analytically right."

For convenience we have compressed Mr. Johnston's conversation so as to bring the manufacture from the Canadian experimental stage up to its extensive production in London at the present time. It was about the beginning of the 'seventies that Mr. Johnston perfected the preparation and put it on the American and Canadian markets as Johnston's fluid-beef, a friend of his at the same time introducing it here; and doubtless there are many in the trade who remember the original tins. Its first appearance as a beverage was at a Montreal ice-carnival, in the promotion of which Mr. Johnston was interested. How it came there is a short but dramatic story. One cold night, 30° below zero, Mr. Johnston was sitting at home, smoking a cigar, when the thought struck him, "My fluid-beef is the very thing people should drink in this weather." So he acted upon the impulse by saying to his fellow-committeemen next day, "I will pay you so many thousand dollars if you allow me to charge ten cents a head for the Ice Palace, and I will give everyone who comes into the palace as much fluid-beef as he likes to drink." This offer was accepted, and 75,000 visitors came, and left the palace with memories of the fluid-beef, which, thus popularised, simply bounded into public favour. Then the Scott Act came in opportunely to give it a fillip, for Mr. Johnston got the public houses, deprived by the Act of their alcoholic-liquors licences, to take up the fluid-beef, and they were glad of it. The final step, so far as Canada is concerned, was when a deputation came into his office one day and made him an offer for the whole concern in Canada and the United States. "I'll think over it," was Mr. Johnston's reply. He thought, accepted, and the year 1884 saw him in the old country once more with the intention of retiring; but retirement is not for active minds. The last great public appearance of the preparation as "fluid-beef" was at the "Colinderies," where the huge castellated urn, similar to that used in the Montreal Ice Palace, helped to give a foretaste of the bovril-urn now so familiar. Mr. Johnston ends this part of the story by saying, "That was a very good cigar."

Everybody knows, we take it, that "bovril," if it means anything, means "beef-force." The word was coined after the "Colinderies" was closed. Perhaps everybody knows, also, that its introduction as a popular beverage was largely influenced by Spiers & Pond adopting it. That is a good example of Mr. Johnston's astuteness, which is apparent in every department of his business. But bovril is not the be-all and end-all of his existence. He is a food specialist, or, may we say, dietetic enthusiast. All the facts which we have recorded were garnished by his wide knowledge of the chemistry and physiology of food, as Mr. Johnston demonstrated that each step of the evolution of bovril was based upon scientific fact. In popularising bovril a slight change had to be made in its fluidity and manner of packing, and Mr. Johnston recognised that there was still a field for an article to be used in the sick-room exclusively. Invalid-bovril is the result. This preparation is really a combination of the constituents of bovril and beef-juice in a readily-assimilable form. Bovril beef-jelly is another product introduced to meet the demand for a purely stimulant preparation, and both these articles are introduced to the public through the drug-trade only, at prices which do not prohibit their use by the most humble. Still another and highly-important department resulting from Mr. Johnston's ingenuity has recently been brought under public notice through Bovril (Limited) supplying the Nansen Expedition and the Ashanti soldiers (as well as others) with rations. The common notion is that this means bovril only; but it is much else. Every soldier who went to Ashanti got three messes of bovril per day, and he also carried in his haversack an oval tin cartridge, weighing about $\frac{1}{2}$ lb., which contained varied water-free nutrients to last him for thirty hours. This cartridge was only to be opened in certain circumstances, which need not be gone into here, for the point which we have to notice is that the food in it was selected in every respect as the most suitable for the climate and for powerful, hard-working men. Our War

Office used to think that any kind of food would do for soldiers, but they have learnt the lesson of bitter experience, and find that the best is the cheapest for Tommy Atkins as well as for Lord Tom Noddy. The idea of this department of Bovril's work is to undertake the supply of rations of cooked food adapted for the climate in which it is to be used, and in the most portable form. An order may be, "Rations for 100 men who will be in the Soudan three months," or, "Twelve men are going to the North Pole for five years; supply rations for 200 days' sledging, 100 days in a halloon, and the rest of the time on board ship." Diet-tables are constructed, the specialists set to work to see how they can get the cooked food in the most assimilable and compact form, and by-and-by the rations are packed in neat hermetically-sealed tins, so light that one can carry a ten-days' supply in a haversack.

"It is a very strange thing," remarked Mr. Johnston in the course of the conversation, "that man gives so little thought to the food which he eats himself, and so much to what he gives his dog, horse, or cow. I may safely say that the feeding of animals has been reduced to a science, but we feed ourselves with what is nice and tasty without giving a thought to its suitability." I may cap this reflection by saying that Bovril (Limited) is trying to do for man what Spratts (Limited) has done for the dog, and Mr. Johnston is still the guiding-spirit of the Company.

A DOSE OF LITTLE LIVER-PILLS.

THE June sun glared yellow on Holhorn Viaduct when I ran to earth Mr. Brent Good in a cheerful room overlooking that thoroughfare. Indicative of the propaganda to which the apartment was consecrated, a photographic group of the Patent-medicine Men of the United States, in Convention assembled, and a map stuck with bannerets marking the onward march of liver-pill, adorned the walls.

"Once again here on business Mr. Good?" I queried; "surely you spend a considerable portion of your life on the Atlantic?"

"This," said Mr. Good, lifting his Panama hat to wipe his ruddy brow, and pulling up the knees of his flannel trousers as he let himself down in an American chair, "this is my seventy-first trip across. Business, yes; but combined with pleasure."

(Which I wish to remark, as Bret Harte says, that I heard afterwards that Mr. Good's seventy-first journey was also a honeymoon-trip, the daughters of his first marriage having figured as bridesmaids, and his son as best man, when the proprietor of "Carter's" led the second Mrs. Good to the altar.)

My interview being a strictly business-function, I at once mentally partitioned off Mr. Good's pursuits of pleasure as outside the scope of my inquiries, and asked him how he was getting on with the pirates of his trade-mark.

"I got most of them by the neck now, I guess," was the answer. "Only yesterday I fired out one in the What-dycallem Road, way South—a little druggist with a one-eyed store. Usual tale:—Very sorry; didn't know he was doing anything wrong—had no money—gave up all his labels, and hoped I'd let him off! They're a pest, these fellows, both on this side and in the States. And, mind you, I will say this for England: it's easier to get justice here than at home. In America we have to prosecute under a different law in each State. In some sections we can lock 'em up. I imprisoned nine pirates in Illinois within the past few years. In others they are both fined and jailed; elsewhere, again, we have the greatest trouble in securing a conviction. . . . There's a man in New York State now," mused Mr. Good, not caring to conceal his satisfaction at the hardness of that particular transgressor's way, "doing eight months for imitating Carter's pills. My! he'll soon be out; they put him in last November."

And Mr. Good went on to lay down many solid reasons why no mercy should be shown to men who try to enrich themselves by trading on another's brains and enterprise, the while my thoughts kept wandering to the druggist in Sing-Sing—or wherever they have lodged him, serving his eight months this glorious summer weather. But he is probably a hardened miscreant, who can "do the little hit on his head," and will start afresh as soon as he has the chance, unless

held in terror by the law. *So j'en passe, et de meilleurs!*

From all of which it must not be inferred that Mr. Good has no sympathy with pharmacists. Quite the contrary.

He is of the craft himself, and I have no doubt that the recollections of the days when he wielded the pestle often incline the indicator of his mind's balance towards mercy when he has to deal with an infringer. Mr. Good's earliest pharmaceutical experiences were gained in a chemist's shop at Belleville, Ontario, Canada, where, from 1851 to 1856, he served his apprenticeship. Then he migrated to New



MR. BRENT GOOD.

York, and obtained a place in the wholesale firm of Barnes & Co. There Mr. Good had for a fellow employé John Morgan Richards, now his European agent. The two men became chums, and their friendship, outlasting Mr. Richards's departure for England in 1866, has ripened through life.

"I shall be on the ocean again before your interview is written," said Mr. Good to me; "but if there is anything you're not sure about, something that has escaped your memory, go to my old friend Richards here. He knows me as well as I know myself. I've got no secrets for him, sir! John Morgan Richards is the noblest work of God—an honest man."

To return to Mr. Good's career. In 1864 he went into partnership with Mr. Wm. Warner—still a prominent American pill-manufacturer. In 1868 he started on his own account as a wholesale druggist, under the firm-name of Brent Good & Co. Some years before he had fallen in with Dr. Carter, of Pennsylvania, whose liver-pills had a certain reputation, and become a partner with him. But as Mr. Good didn't want Dr. Carter in his other business, the Carter Medicine Company was constituted a separate concern, and in 1879 Mr. Good, buying out the Doctor, became the sole proprietor of the business.

"My pills are just as old as the Queen's reign," said Mr. Good, proudly. "Since I became connected with them, in 1860, four millions of dollars have been invested in advertising them, and our advertising-account is still growing every year. Can you wonder, then, that I have lost patience with those who seek to rob me of the fruits of my work? Why, I've always stood by the chemists. When the muslin-druggists—stores, I mean—first started in America I refused to supply them on better terms than the regular chemists, and was boycotted for my pains by the muslin-men. Many of them won't sell my pills now. And what thanks do I get? Why, not 60 per cent. of the people that I send into the chemists' shops as the result of my advertising get served with my pills. The rest are hoodwinked with counterfeits!" Which goes to show that the shrewd, jovial, sanguine Mr. Brent Good is not (what, in fact, he doesn't look) a philosopher. Else he would know that there is no man so fortunate but someone rejoices when evil befalls him, and reflect, with Marcus Aurelius, that although "even the associates in behalf of whom I have striven so much, themselves wish me to depart, hoping perchance to get some little advantage thereby," one should not feel less kindly-disposed towards mankind on that account.

But, though Mr. Good may not resemble Marcus Aurelius in devotion to philosophy, he can give him points as a fighting man. The Roman Emperor never conducted so many campaigns against the Marcomanni and Quadi as Mr. Good has waged against the counterfeiters. Even now an agent is setting out in the interest of the Carter Medicine Company to fight several of those gentry who have sprung up under the Southern Cross. Most people would imagine that the cares of a great medicine company would be

enough for any man. That Mr. Good does not think so is shown by his visiting-card, which enumerates one concern of which he is the proprietor—viz., the wholesale drug-firm of Brent Good & Co.—four American companies (not counting the Pills) over which he presides, known respectively as the Writing Telegraph Company, the Conformer Bevel Company, the Brent Manufacturing Company, and the Lyceum Theatre Company, and one, the Franklin National Bank, of New York, which he helps to direct. Mr. Good, it appears, lost \$80,000 in the predecessor of the Franklin Bank. So, to make sure that his account would be safe in future, he bought the wreck and reconstituted it, largely by the help of his patent-medicine friends.

"All the boys are in it," he said. "Fulford, of the Pink Pills; Cox, of Antikamnia; Morgan Richards here, and lots more. Aye, it's as sound as the Bank of England, for we are a fairly well-to-do trade in America. The patent-medicine men of the States, sir, are estimated to be worth \$400,000,000 between them."

The Conformer Bevel Company makes carpets, or it lays them, or beats them. I am not quite sure which, for while Mr. Good enlarged upon its merits, I could not help thinking of the striking personality before me, unconventionally clad in fine white flannel, chatting away in his expressive American fashion, and representing, I felt, more than a bare percentage of the four hundred million cress collected from devotees at the shrine of the modern Hygeia.

"And the Lyceum Theatre of New York, Mr. Good. Are you a worshipper of Thalia?"

"Can't say I am. I'm rather a man of serious inclinations, a red-hot Episcopalian, though I own a pew in Dr. Parker's church yonder."

"Perhaps an American branch of the Church and Stage Guild?"

"Not so, either. The fact is I had loaned money on the concern, and so got a finger in that pie."

"He is engaging the soubrettes here," chimed in a third person present at the interview. "Why, Mr. Good, you haven't told that you were photographed on the same plate with Mrs. Langtry, and—"

But Mr. Good denied the soft impeachment. "Anyway," he concluded, "if I like the interview, I'll write you an autograph letter from New York, and I'll make you a dead-head in my theatre for a twelvemonth."

And, turning laughingly to the picture of Patent-Medicine Men on the wall, Mr. Good pointed out to me Mr. Chauncey F. Depew, the American orator, who never fails to make an after-dinner speech at the annual convention of the medicine people, and who is reputed to live exclusively on public dinners, varied with doses of little liver-pills. After which I said good-bye, mentally revolving my chances of being appointed a Deadhead to a New York theatre.

VASELINE.

"It's all right now," said Colonel Chesebrough as I entered his office on Holborn Viaduct. The *mens rea* was obvious, but I did not at first appreciate what was all right or what had been wrong. I soon discovered, however, that there had recently occurred one of the periodical vaseline famines, and that the Colonel fancied I had called, as I had done on some previous occasions, either in sorrow or in anger.

He went on to explain that matters had not this time reached a serious condition, but there had been a short supply. His brother in America had invented some improvement in the method of producing vaseline, and had set up some new machinery; that machinery had not proved complaisant, and for the moment the new process was at a standstill. Meanwhile the old process had been neglected somewhat, and Europe had had to suffer—as Europe generally has to when America gets excited about anything.

I said I had called this time merely as an historian, and not as a judge, and I begged the Colonel not to be frightened. I may remark that Colonel Chesebrough has been a man of war from his youth up, while I should run away from a sheep if it faced me firmly.

"Who discovered vaseline, and how?" I asked.

Colonel Chesebrough assured me that in this respect he was not guilty. It was his elder brother, Mr. Robert A. Chesebrough, who was solely responsible for this addition to

the world's burdens. His own share in the business had been confined to lubricating the Eastern hemisphere with the stuff. Colonel Chesebrough, indeed, established a satisfactory *alibi*.

"I was in the army when my brother first produced vaseline," he said. "He was a petroleum-refiner, and was constantly experimenting. He always believed that petroleum could be utilised in medicine, and after a great many failures he at last succeeded in obtaining this beautiful emollient substance from it. His primary idea was to use it principally as an internal remedy, and it happened curiously that soon after its discovery he was taken very ill with pleuropneumonia. He got as ill as he could



COL. CHESBROUGH.

be; his doctors had little hope of saving him—so little, indeed, that they allowed him to treat himself with his new remedy. He took vaseline and nothing else, and that, we always believe, saved him. Afterwards the substance was gradually introduced to the American medical profession, and found favour as a basis for ointments and so on, but it was not till after the Paris Exhibition of 1878, where we made a large exhibit of it, that its use became universal."

"And was that when you became associated with the business?"

"No; I had been working it for Europe for two or three years before that."

"But were you not at one time whatever is the American for 'attaché' to the U.S. Embassy?"

"I was Secretary to the American Legation," said Colonel Chesebrough, with the slightest shade of a tone of reproof. For Americans are all very punctilious about the exact official titles which their nation adopts, although it is believed that there are still a large number of them who insist that Queen Victoria regularly resides in the Tower of London. Then he told very pleasantly, but far too modestly, of his experiences in the war. At the first battle of Bull Run he was first lieutenant in the 11th Infantry Regiment; he was a participator in a large number of the great actions of the war, the greater part of the time serving on the staff, and after the war as Adjutant-General of the division of Militia in New York city. His subsequent selection for the secretaryship of the American Legation is sufficient evidence of the esteem he had won from the Government in his military career.

His firm faith in the future of vaseline induced him to abandon diplomacy for commerce, and in this connection we venture to tell a story, which we certainly did not hear from Colonel Chesebrough, and which may or may not be true.

Soon after the change of occupation Colonel and Mrs. Chesebrough were at some grand function, when a former acquaintance in the diplomatic world remarked to the latter, "You have left the Legation, I hear?" "Yes," said the lady, "we have gone into the service of Greece."

Vaseline has been one of the most notable of pharmaceutical successes. As an emollient which could not go rancid, it was soon found that it filled a real want. Not long ago (in 1894) one of the *C. & D.* post-card competitions testified that vaseline was considered by the chemists of the United Kingdom to be one of the substances most frequently sold by chemists and druggists. It ran a dead-heat for first place with Epsom salts, its closest rivals being glycerine, Beecham's pills, castor oil, and seidlitz powders. The belief in the therapeutic virtues of petroleum was very common among certain Indian tribes, and before it became an article of commerce it was sold and used, both externally and internally, under the title of "Seneca Oil." Mr. Robert A. Chesebrough's researches were undertaken with a view to ob-

tain this jelly of petroleum in the purest form. When he called it vaseline he, perhaps, little realised what a valuable trade-mark he was creating. His idea in coining that name was to combine the German *wasser* with the Greek *oleon*, indicating his belief that petroleum is produced by the decomposition of water in the earth and the combination of the hydrogen evolved with the carbon of certain rocks. Whether the title thus explained can be said to be descriptive or not, I cannot say; but legally that is of no consequence, for it can undoubtedly be claimed as an "old mark"—that is, one which was used as a trade-mark before 1875—and as such is unassailable. It is one of the best and most valuable trade-marks in the drug-trade.

CHLORODYNE.

"WHAT more is there to say about chlorodyne?" the gentle reader may ask, and it was exactly to get a reply to the question that I went along to 33 Great Russell Street, W.C., to interview Mr. Horace Davenport. The shop is still a pharmacy, with the bottles on the shelves, specimens of chemicals on the counter, and a few bits of "Camwal" literature; but if you think of getting a dose of salts there, or a packet of quinine, you will be told that the bottles, &c., are only retained for "Auld Lang Syne." You may talk quinine, or salts, or anything else pharmaceutical you like, but you get none of them except chlorodyne and "Camwal" waters.

I thought Mr. Horace Davenport's invitation to come into the drawing-room, as he pleasantly called his private office, quite appropriate to my visit, so I immediately proceeded to the drawing-room, and with this question—"Have you read that article in the *C. & D.* on chlorodyne?"

"Yes," said Mr. Davenport; "and it shows just what I have always maintained, that if you let imitators alone they contradict each other sufficiently to throw discredit on their work."

"Well, I have come to hear more about it—no, not about its composition—about Dr. Collis Browne, for example, and how your father came to take up the chlorodyne. Did you know Dr. Browne?"

"Very well indeed. He died just ten years ago. He had used chlorodyne when he was in India as an army doctor, and had it well tried there in hospitals, and by many other doctors. We had here until shortly after his death the original of a declaration by a board of medical officers in India testifying to the value of chlorodyne in cholera and dysentery. That was one of many documents submitted to my father when Dr. Browne asked him to take it up." As a matter of historic interest we may add that since this interview we have seen a handsome

THE LATE DR. JOHN COLLIS BROWNE.

illuminated address presented to Dr. Collis Browne in this country in 1854. It is one of many testimonials which have not been used for advertising-purposes. The address is as follows:—

"This facsimile of Gold Medal was presented to Dr. John Collis Browne, N.P. Army Staff, by a population of five thousand inhabitants at Trindon, in the county of Durham, in testimony of his exertions in stopping a visitation of cholera among the inhabitants in the months of July and August, 1854. Previous to his attendance twenty-two out of twenty-three persons attacked died; but subsequent to his arrival upwards of 200 cases were treated, and out of this number 151 cases are recorded with only one fatal result, the remaining number not being registered on account of pressure of attendance.

"I think that was about the time your father was President of the Pharmaceutical Society, was it not?"—"Yes."

"Then, I suppose, his position would not permit him to

take up a proprietary medicine without some personal investigation?"—"He had it well tried by several medical men, and it was really on their recommendation that he agreed to take it. But there was nothing further from his mind than to make it a so-called patent medicine. That was a position forced upon him and Dr. Browne by circumstances. They regarded chlorodyne entirely as a medicine to be prescribed by doctors—yes; like Battley's solution, as you suggest."

"Was it not stamped at first?"—"Not at all. We were forced to that by the Board of Inland Revenue—I think about 1866."

We have since ascertained that it was in December, 1865, or nearly ten years after the introduction of the preparation, that Mr. Davenport was informed by the Board "that chlorodyne cannot be sold under any circumstances without medicine-duty." Previous to that it had been sold at 3s. per 1-oz. bottle (that being the smallest size), 5s. for 2 oz., and so on.

"Is it any way different now from what it was at first?"—"Except in regard to the put-up, no; I think there was at first a $\frac{1}{2}$ -oz. bottle for 2s. 6d., but with the stamping we gave a 3-dr. bottle for 1s. 1 $\frac{1}{2}$ d. My father made some pharmaceutical improvement on the chlorodyne as he got it from Dr. Browne, but that was before he sold any of it. We dare not alter it now, as we probably could to increase its elegance, for we should have thousands of bottles returned at once. The slightest difference would be detected by those who know it."

"How did it get its universal reputation, Mr. Davenport? Did you advertise much at first?"

"Of course, it was well known in India before it came to England, and that was through doctors using it. It was exactly the same here, and there was little advertising except in professional journals. Gradually that had to be extended to protect our interests, but my father has always been averse to much display, and would say nothing about it that was not based upon medical testimony. You know how modestly we advertise even now. Well, we never did more. I should say the thing has advertised itself, or people have done it for us. I may tell you that my father has never paid a penny for any report or testimonial received or published regarding chlorodyne." Pursuing my inquiries, I asked Mr. Davenport if Dr. Browne had definitely retired from practice when his father bought the recipe from him.

"Bought it!" was Mr. Davenport's reply. "My father never bought it. Dr. Browne shared in the profits until his death, and his son (Major Browne) then succeeded to his interest. I ought to tell you that I have no direct interest in the article—you are not speaking to one of the proprietors—I simply act upon instructions. But about Dr. Browne. He practised medicine for the love of the thing after he left the Army Medical Staff. He was a clever, ingenious man, with a great fund of originality about him; but he lacked business acumen. One of his inventions was for raising sunk ships. He fixed tanks filled with water to the vessel, and they had attached to them a compartment of acid and a carbonate, which were at a certain point allowed to come into contact. The carbonic acid disengaged displaced the water in the tanks, and so the vessels were raised. The doctor gave a patent agent instructions and fees for specifications, and so on, but looked after his own interests so poorly that the agent pocketed the fees and never took out the patent. The doctor never got any benefit from the invention, although it was worked. He also invented a



MR. J. T. DAVENPORT.

hollow prow and a peculiar keel for yachts, which did not come to much in his day, although they have been taken advantage of since."

"Then his only success was chlorodyne, and that because another man took the business part of it?"—"That's about it. How did it get its name? Dr. Browne made that before he gave my father the recipe. Some suppose that 'chlorodyne' means 'chloroform anodyne'; but it is not for me to say."

We then proceeded to talk about other things, which are not for publication. I have little space left for Mr. Horace Davenport himself. He overlooks the manufacture and destiny of chlorodyne with, I should say, suppressed energies, rigidly carrying out the traditions entrusted to him, even to placing the Government stamp upon every bottle, whether used for dispensing purposes or not. Every bottle that goes abroad is also stamped.

"HOLLOWAYS."

It is singular how modest and unobtrusive are proprietors of patent medicines as a class, where their personalities and business establishments are concerned. Take the great pill and ointment factory in Oxford Street, for instance. Instead of a gaudy house covered with advertisements, tenanted by gentlemen ever on the look-out for an opportunity of obtruding their personalities upon a disease-stricken world, there stands a large, plain, grey building, the owner of which, in answer to your request for a photograph where-with to illustrate your interview, gently tells you that he does not wish the world to know what he looks like, that he has never given his likeness for publication, and, in short, that he would rather not.

The striking features of the late owner of the firm, the famous "Professor" Holloway, are, it is true, known to all the world. His successors are proud of him, not only as the founder of a house of world-wide renown, but also because he freely spent in public and charitable objects a great portion of the wealth he amassed. One of the walls in the private room of the present head of the firm is covered with photographs of the late Mr. Thomas Holloway, surrounded by those of South-American correspondents of his, mostly missionary-priests and travellers in forlorn outposts of civilisation, who helped to spread the knowledge of his medicines; who, to this day, write to the firm as regularly as the primitive postal arrangements of their localities permit, and who, though for the most part personally unknown to either the late Mr. Thomas Holloway or to his successor, have in the course of years become, in truth, personal friends of the house and zealous promoters of its interests.

But this is taking time by the forelock, for the inspection of the photographs brought to a close a long interview with the present sole proprietor of the business, Sir George Martin Holloway, the nephew of the founder, having died last year. "The late Mr. Thomas Holloway," said that gentleman, in reply to my inquiry, "started business in the Strand fifty-nine years ago. We still have a copy of the first advertisement ever published by him. It appeared on October 15, 1837. It is a familiar story how Mr. Holloway spent all the modest profits he reaped from his young pill business upon increased advertising, and how that investment bore fruit in exceeding abundance. But it is not so well known that in the early days of the Queen's reign Mr. Holloway had great difficulty in finding out the names of foreign papers in which to place his advertisements. The founder of our business was a firm believer in appealing to people in all corners of the world in their little local papers, and as there were few or no advertising agents in those days, he had to write thousands of letters in order to obtain a full list of the foreign and colonial journals. Those letters brought him many valuable connections, not the least of whom were the missionaries, whose pictures are on yonder wall. We still adhere to our system of placing all our advertising direct, and not an announcement appears in any back-block paper in Queensland or South America but has been ordered straight from this establishment."

And our representative understood how it was that employment could be found for the thirty or forty clerks who work in the big ground-floor office, with its lofty marble pillars and carved-wood ceiling.

"Our goods are all made in this building, which we have occupied since 1867," continued Mr. Holloway. "The pills, as you know, are the original preparation, and still have a rather larger sale than the ointment, which was placed on the market a few years later. You are aware, of course, that we are one of the most conservative firms in the trade in our style of advertising, and at the same time one of the most money-spending."

"Of late years, however, we have reduced our outlay on newspaper advertising somewhat, but only because we have gradually adopted other methods, such as advertising by almanacks, children's books, and the like, which seem to be gradually taking the place of advertising in the daily and political weekly press."

The cutting-question is an acute one at 46 New Oxford Street. Mr. Holloway has had a good many letters from chemists, expressing satisfaction with his recent circular altering the sale-terms of his preparations. "Our object in issuing that circular," said Mr. Holloway, "was to secure to our pharmaceutical friends a minimum-profit, at the same time giving them an opportunity of making as large an extra gain as is compatible with the circumstances of their locality. So far the new conditions are working fairly well, but I am none too certain that the chemists will take advantage of the present agitation to set their faces resolutely against the cutting of patents below a fair handling profit. I wish they would, but I am afraid that the cutting evil is too firmly rooted to be eradicated now. It is, perhaps, worthy of note, as another instance of our business conservatism, that the price of our preparations has never been changed from the time they were first placed on the market, in 1837, until our recent circular. The lowest price of either the pills or the ointment has always been 8s. 6d. per dozen. No one has ever had any discount off that."

KEATING'S POWDER.

To few men is it given to enrich their native tongue with a household word. The late Mr. Thos. Keating was one of those elect, for the verb coined from his name, though not yet admitted into our standard dictionaries, has become as much part and parcel of the English language as "to boycott," "to aspinall," and the like. It filled, in fact, a previously unperceived want in our tongue, none of the thirty-two thousand and odd words that make up modern English expressing as forcibly and neatly as "Keating" the destruction of domestic vermin. The word has also filled, and continues to fill, the pockets of the lucky proprietors of the powder, who have established their sole right to it in many a hard-fought battle.

"When the best names are mentioned
My name is mentioned too,"

said Heine of German poets. Similarly, when the story of successful pharmacists is written, Thomas Keating's name must assuredly figure on the list, for he was a pharmacist—at the outset a little pharmacist—who joined the firm of Batley & Watts in St. Paul's Churchyard, an old house first heard of in 1788. From the churchyard shop Mr. Keating introduced his lozenges and powder, and in 1870 he died, full of years, and in the knowledge that wherever the English language was spoken no one could see a flea or a blackbeetle in its last gasp without recalling, by association of ideas, the name of the pharmacist of St. Paul's Churchyard.

"Every time I see an ass I'll think of your Lordship," said the grateful costermonger to the late Lord Shaftesbury when that nobleman presented him with a "moke." Substituting a lower form of creature for the Common Donkey, similar language may with equal justice be applied by the British housewife to the inventor of Keating's powder, and convey as true and deserved a compliment. Strangely enough, Keating's powder was the last of the proprietary successes of its inventor. His first hit was made with the cough-lozenges, which were put on the market as far back as 1820. There is to-day a smart young man engaged in making Keating's lozenges who is the great-grandson of the artisan first employed in that task by the late Mr. Keating, and to whom the art has descended in direct line through the original lozenge-maker's son and grandson. If there is such a thing as cumulative congenital craftsmanship,

this young man should be the champion lozenge-maker in the world.

"Tell me, Mr. Wylde," I said to the gentleman who succeeded to the managership of the business on Mr. Thos. Keating's decease, "tell me, was 'Keating's' an immediate commercial success?"

"By no means. People took to it very slowly indeed at first, and for a long time after its introduction we only



MR. JOHN WYLDE.

bought the ingredients for making 1 to 2 cwt. of powder at the time. Let me tell you, however, that 'Keating's' is not the ordinary ground insect-flowers, but a mixture of various substances, all deftly combined by the inventor. To-day we grind the powder, of which the ingredients come from all parts of the world, at our own mills under stones measuring over

7 feet in diameter and weighing 9 tons a pair. At first Mr. Keating advertised his powder only very slightly."

"Which accounted, of course, for its slow sale?"

"In part, no doubt. But there were other reasons. In the first place, the combined wholesale and retail drug-businesses of Batley & Watts claimed too large a share of energies that should have been entirely devoted to the specialties. The lozenges had already become a big business. The worm-bonbons, introduced about the same time as the powder, were beginning to go well. Then the wholesale branch of the drug-trade was given up, but the retail was kept on until our centenary in 1888, when we removed to this building, having sold the shop in the Churchyard. No, the powder business was a slow-growing concern. There is another matter of interest in connection with our powder. The shape of the retail packages and their price has been altered more often than any other proprietary article I know of. First, it was sold in flat paper packets to retail at 1s. Then we substituted a plain tin box for the paper. Then came the "dredger," with the perforated top. That was a great improvement, but it has been modified three or four times until now we believe it to be as near perfection as we shall ever get it. In 1882, with serious misgivings, we added a 6d. size to our 1s. box. We feared that the smaller package would crowd out the larger, and that the innovation would be a dead loss. The sale of the 6d. boxes has indeed enormously outrun that of the 1s. ones, but the demand for the latter has also grown, and the 6d. article has simply opened up new territory. We are, in fact, so certain now that it is good policy to sell an article of large consumption at the lowest possible price that last year we introduced a 3d. size. And though many customers have written expressing approbation of that new departure, I have not had more than three complaints of it.

"What about imitators and people who pirate your name?"

"Well, you know the trouble I have had. It is recorded in your own journal more fully than anywhere else. And, much against my own inclinations, I feel bound henceforth to act with all the rigour the law allows, continuing the policy followed in our last case. In future prosecutions evidence will be obtained not by ourselves, but by the police or by private detectives, and any evidence that may be given will, therefore, be independent of our firm. It is all very well for people who infringe our rights to cry out, when caught, that they are only small men and didn't know they were doing wrong; but you mustn't forget that there are two sides to every question. We have created this business by our energy and enterprise, and unless we promptly take action whenever we find our property-rights

infringed, we may as well shut-up shop. And, mind you," added Mr. Wylde, with a knowing smile, "we have learned something, too. We won't bark again before we can bite."

"How long have you been connected with this business, Mr. Wylde?"

"I joined the firm soon after Mr. Keating's death in 1870. From that year I have been the sole active head of the business, which has grown immensely during the last quarter of a century. The proof? *Si monumentum requiris, circumspice*, as Wren's memorial has it. Look around you. This building is our forwarding department only. We have two factories in London for our powder, worm-tablets, and lozenges, and we are about to build a place solely for the preparation of the last-named speciality."

"It may be of interest to you to know," continued Mr. Wylde, "that our firm was the first in this country to employ pictorial window-cards. Here is a copy of the first advertisement of the kind we issued. It was printed in English and French, and headed, 'La poudre Keating.' I am sorry I haven't a copy left of the English edition. We invited chemists to apply for cards, and received over 5,000 requests." Showcards, like everything else, are now largely "made in Germany," but the continental specimens Mr. Wylde showed our representative certainly lagged far behind the average English work in design and coloration. "This was the most successful showcard we ever issued," continued Mr. Wylde, exhibiting a picture of a pretty fairy with coquetish wings, surveying a field strewn with dead insects. I ascribe its success to a happy idea from the "Midsummer Night's Dream" that underlies it. The fairy is called "Miss Pack" (*sic!*), and is represented as saying, "I will exterminate this insolent vermin." A good hit; but one cannot make one like it every year. Fifteen thousand copies were printed, and this is the only one left.

And then we fell to talking about anti-cutting, concerning which Mr. Wylde "has his doubts"—but that is another story.

A FORTUNE OUT OF INFANTS' MOUTHS.

"WHERE shall I begin?" said Mr. Gustav Mellin, when I took my seat opposite him in a 'Study' all too luxuriously furnished, I thought, for the pursuit of serious learning. "My life has been so full of incident that I hardly know what to tell you first. I could write a romance about it if I had time."

"Start at the beginning, Mr. Mellin. There is an impression that you are a Frenchman or a Swiss, though I should not judge you to be either by your accent."

"You are right. I am a German, or, rather, a Dane, for when I was born, Wesselbüren, near Tönning, in the Duchy of Holstein, where my parents lived, was still Danish ground. But I was thrown into company with English people at an early age, for my mother was a Helgolander, and when I was about 13 we settled in her native island, where my father, a pharmacist, purchased the only Apotheke, the same shop that afterwards descended to Mr. Michels, now of Kiel. I remember seeing a picture of the shop in your journal at the time when Helgoland was taken over by Germany."

"It was taken for granted from childhood that I would succeed my father in his pharmacy, and I was therefore sent to Otterndorf, near Cuxhaven, as apprentice to a chemist. In due time I passed an examination before a *Kreis-Physicus* which entitled me to dispense, and so forth, as a preliminary to my university degree, which, as you know, a German pharmacist must possess. But I never got so far, as the sequel will show."

"On my return from Otterndorf my father had given up his pharmacy, and only kept on a sundries business. He had been very successful as a chemist, for he was an able man and a conscientious, but the work was too much for him. And as I felt that I ought to have a more cosmopolitan experience before I established myself as an apotheker in such an international health resort as Helgoland was then becoming (we wrote 1852), it was decided that I should try my luck in London. The German Hospital at Dalston, that stepping-stone of emigrant apothekers, provided me with a situation. I stopped there a year. The next twelvemonth I passed as assistant at Schacht & Hilienburg's German pharmacy in Houndsditch, a further stepping-stone, albeit a short one, towards my object—a fashionable

West-end pharmacy. Hilienburg died—he was a clever chap!—and Schacht went to Finsbury Pavement.”

“At your then rate of Westward progress (about half a mile a year, if I judge aright) you must have reached the goal of your ambition somewhat late in life, Mr. Mellin?”

“That’s just how I felt, and so, taking my courage in both hands, I called on Mr. Savory, of Bond Street, where a place was vacant. A nice old gentleman was Mr. Savory, very fond of the Germans. He examined me at length; asked how glycerine and chlorine were made, and gave me prescriptions to read. Then he asked what I would give if a pix* of seidlitz-powders was asked for? ‘A pix of seidlitz-powders,’ said I; ‘I have never heard that word. It must mean a hox or something.’ The old man smiled; but I didn’t get the appointment. And I have often wondered what a pix might be, for I have never come across the word in my experience, nor met with anyone who knew it.

“Shortly afterwards, however, I found an appointment at Wilcox’s in Oxford Street, and while there I had the satisfaction that foreign prescriptions would often be sent me, with the request that I would be good enough to read these for the senders.

“In 1854 a vacancy turned up at Roberts’ in Paris. I accepted; but I never felt at home there. Somehow the proprietor and I didn’t agree. At Roberts’, however, I made one friendship that has lasted until now—with Mr. Kemp, afterwards of Kemp & Co., Bombay, and now one of the directors of Mellin’s Indian company.

“My next situation was with M. Mialhe, of the Pharmacie du Louvre. It was there that the idea of converting starch into sugar and maltose, for the benefit of children—and of myself—first occurred to me. Mialhe, as you know, was one of the best French chemists of his day, and much of my time was spent in his analytical laboratory. The hours were awful—from 7 A.M. till midnight—but work slackened about 10 o’clock, and we often had a chance of running over to the Opera Comique and seeing the fag-end of a play. Mialhe, however, was kindness itself with those assistants to whom he took a liking, and the feeding was excellent—excellent!” exclaimed Mr. Mellin, with enthusiastic recollection—“a waiter in dress served at our table. I remember at Mialhe’s making up a medicine-case for the Emperor (he was ill with fistula), who was then leaving for the Italian campaign that ended in Solferino.

“I still intended to return to Heligoland, but by way of England, for I felt that I ought to get an English diploma. My next engagement was with Hopley, in Tichborne Street, and then with Hartnoll, of Regent Street, who carried on a business mainly with foreigners, though he didn’t know a word of any foreign language. Hartnoll was consumptive; I often got up in the middle of the night to put coal on his fire. I toiled and moiled at the business on a 60% screw, but I didn’t feel that he treated me as he should have done. One day we had a flare-up, and I left.

“Now came my revenge. I went next door as assistant to Marshall, a surgeon, who had a dilapidated chemist’s shop, for which he paid 150% rent, though his takings only were 10s. a day. He was a brick, was Marshall, as liberal a man as you could wish. Said I, ‘We have a fine chance of developing a business here, but our stock wants renewing entirely.’ ‘How much?’ asked Marshall. ‘100% to begin with.’ ‘Very well, have what you like,’ was the answer; so I bought everything of the best, and used to stand at my

door feeling a foot taller. Customers of Hartnoll’s would pass—Germans and French—and ask, ‘What! are you here now? Then we will bring our custom here too; they don’t understand our lingo next door.’ From 10s. a day I soon worked up the business to 3%, then to 7% a day, and during the ‘62 Exhibition we often counted 30% or 40% at closing-time.

“I tell you, Mr. Interviewer,” said Mr. Mellin, pacing up and down the room, “my heart often jumped for joy when I stood at my door at night and thought of the business I had worked up, and of Hartnoll’s stagnant trade next door. I worked like a horse, I assure you, and Marshall was ready enough to acknowledge that, for he took me into the partnership before long. Then Hartnoll died, and some time afterwards Marshall followed suit, and I was left sole proprietor of the business. That’s a story by itself; it came about in this way: One day we were called to a small hotel in Villiers Street, next to Charing Cross Station. A rich Russian had died there of peritonitis, and his corpse was to be embalmed and sent back to Moscow. Marshall, as surgeon, and I, as pharmacist, both took a hand at the job. The body was in a dreadful state, half putrid, decaying matter dripping down on all sides. Such a stench! We got 100% for that job, but I would never do the like of it again. Certainly not now!”—with a glance at his sumptuous apartment. “Well, we took the inside out of the Russian, injected chloride of zinc into him, packed him full of aromatics, astringents and other nice stuffs, sewed him up, rouged his face, and shipped him off, as beautiful a corpse as you could wish to see. But Marshall had eczema on his hands at the time. Some of the matter from the body got into the sore, and a twelvemonth later Marshall was himself a corpse. Then I had his business.”

It is long since I heard such a sickening story as that of which I here reproduce the barest outline. When Mr. Mellin lingered, with many graphic details, over the putrid corpse of the Russian stewing in the summer sun in the little room in Villiers Street, I was vividly reminded of the scene of the wake over the body of the heroine in Flaubert’s “Madame Bovary,” and of the minute description of her death from arsenical poisoning.

“Shortly after starting the business on my own account I again took up my Infants’ Food research. I felt certain that there was a future for such an article, and presently I made a liquid food which was well enough so far as it went, but had no keeping properties. Then a Baroness von Lersner and her husband came along with an introduction from Liebig, and suggested that they should help to push the food. I agreed, for they were people, I thought, with an *entrée* into Society. For a time all went well. The undertaking partly wore a philanthropic character. Large quantities of the food were given away, and the Infants’ Food Society (the Most Noble the Marquess of Townsend, President) recommended it. But when the weather grew warmer and I began to realise that the liquid food would not keep through the summer, I evaporated it to dryness, and by subjecting it to some further manipulations, at last succeeded in making 1 oz. of the present Food, and of lacto-glycose. The last-named preparation is no longer sold. Dr. Eustace Smith, by calling attention to my preparations in a popular book of his greatly assisted the sale, and gradually the business began to pay. That was about twenty-five years ago. But I became involved in many lawsuits with imitators of my food, and in quarrels with the von Lersners. All this cost me 12,000%, and at last I was forced to make an arrangement with my creditors. I got rid of the Baroness (clever woman she was, I’ll say that for her), and I am proud to say, sir, that I paid back to my creditors twenty shillings in the pound with 5 per cent. interest, on the whole 3,000%. I owed, though it took me thirteen years to do it. Thirteen years I slaved to free myself from the burden, and at last my success was assured.

“As soon as I saw my way clear I began to advertise on the largest scale my means would allow, and within the past few years I have spent 50,000% a year on advertising in this country, and an equal sum in America. Does it pay? Last year the profits of the business, as shown in the prospectus converting my works into a company, were over 30,000%. What I do I do handsomely. I have always made it a rule to advertise well. I once gave away several thousand brooches—not rubbish, but real silver, and my pictorial



MR. G. MELLIN.

* “Pixides” was a label often used on old-fashioned drawers to indicate cardboard boxes. A pix would therefore be a cardboard box.—ED. C. & D.

posters have ever been chosen regardless of cost. The idea of publishing photographs of babies brought up on my Food was one of our best hits.

"At first I made the food in my back shop, it took me as long to make the first two bottles as it now does to make 20,000. Then the Café Monico was started, and they bought the back of my shop for 800%. In that year, 1875, I started the Marlborough Works at Peckham, with two coppers, but no steam-power. The greatest difficulty I ever had in my food experience was to find out how to make it *in vacuo*. I spoilt many tons of the food. I found the process, lost it, found it again and held it fast. To-day Mellin's Food is turned out at the rate of 20,000 bottles a day in England and rather more in the States."

"And the pharmacy in Regent Street?"

"I kept it on until last Christmas, Mr. J. W. Style, my former manager, paying me 500%. a year, and having the rest for himself. Mr. Style then died and his widow has the shop now. You know that I turned my food-mills into a limited company the other day. That was not done because I wanted money, but for testamentary purposes only. My two boys, when they grow up, may not care to carry on the business, and the road is now clear for them to appoint a manager to do the work for them if they should so desire. And now would you like to see my house?"

With which Mr. Mellin led the way through the modernised Manor House where he rests himself from the cares of business, and whence I emerged with a confused idea of miles of Turkey carpets, waggonloads of curios and china, and acres of pictures. I don't know if Mr. Mellin could, and he would, write a novel himself, but I feel that his career would furnish material worthy of the pen of a Balzac or a Howells.

PULVIS JACOBI VERUS AND OTHER OLD MEDICINES.

A HUNDRED AND FIFTY years ago last February Dr. Robert James, of St. Paul's, Covent Garden, entered into an agreement with John Newbery, bookseller and merchant in medicine, St. Paul's Churchyard, to make his "pills for the gout, rheumatism, king's evil, scurfy, and leprosy," and to take half a share in the fever powder which Dr. James had invented in 1743, but did not patent until November, 1746, or nine months after the agreement mentioned. John Newbery was a Reading bookseller with a branch in London, which grew so much in importance that in 1746 he gave up the Reading business in books and physic and settled in the metropolis. His direct descendants are Mr. A. Le Blanc Newbery and Mr. Lionel Newbery, the principals of Francis



MR. ARTHUR L. NEWBERY.

Johnson, Dr. Oliver Goldsmith, and many another light of English literature, the publisher of children's books which are now worth their weight in gold, is too comprehensive a subject to enter upon here, except in relation to his "medicinal warehouse" at the north-east corner of Ludgate Hill, where might be had, in those far-gone days, such things as—

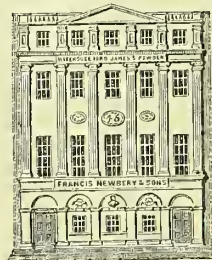
Dr. James's powder
Dr. Steers's oil for convulsions
Dr. Hooper's female pills
Glass's magnesia
Henry's calcined magnesia
Mrs. Morton's mordant drops
Greenough's lozenges of tolu
Grant's drops
Hill's balsam of honey
English's Scots pills

Dacey's Scots pills
Cook's rheumatic-powder
Rowley's herb-snuff
Cephalic snuff
Kennedy's corn-plaster
Hemet's dentifrice and essence
Ormskirk medicine
Dr. Bateman's drops
Dr. Norris's pills
Dalby's carminative-mixture

Some of these are still living medicines. There is a little note in Alpe's "Handy-book" stating that the oldest impression in the proof-book preserved in the Stamping Department at Somerset House is of a stamp appropriated to F. Newbery & Sons of Dr. James's fever-powder. In 1861 an original packet of the powder was presented to the Museum of the Pharmaceutical Society, bearing the elder Newbery's autograph; and Mr. Morson remarked on the occasion that it should be carefully preserved, as it might at some future time be the means of proving the composition of the original powder. Messrs. Newbery themselves have a bottle of the powder actually prepared by Dr. James himself, which

must be a hundred and twenty years old. Dr. James was a Lichfield man, so was Dr. Johnson, and the one introduced the other to John Newbery. Dr. James had used the fever-powder in his practice for three years, and he saw John Newbery in regard to the sale of the powder, but as the book-publisher could not spare time to talk the matter over then, he asked him to call at his country-house at Vauxhall the following day. That was a fateful post-

ponement for the doctor, as it made him stumble over a horseshoe on Westminster Bridge when he was wending his way to Vauxhall; he put the shoe in his pocket for luck, and ultimately a horseshoe figured on his carriage as a crest. Need we say that the afternoon at that country-house was satisfactory? In the worldly sense it was, and ever after Dr. James attributed the success of his fever-powder to the horseshoe. Under a bond of 10,000l. Dr. James bound himself to make all the fever-powder that John Newbery could sell. Both parties adhered strictly to their bond, drawn up, by the way, in February, 1746; the powder brought them fortune and fame, the former tempered by imitations, and the latter seasoned with lampooning, caricature, and vituperation, which the inventor felt so keenly that at his death in 1776 he left a perfect magazine of the powder so that it might not be said that the secret died with him. By that time John Newbery's son Francis, an Oxford graduate in medicine, had succeeded to the medicine business, the books going to a nephew. In 1778 Francis Newbery began the erection of a new warehouse on the east side of St. Paul's Churchyard, No. 45 (the building here shown). Here the fame of the celebrated powder was kept up until a move was made to Newgate Street, and later to King Edward Street.



We may mention that on the spot where John Newbery commenced business last century, at the corner of St. Paul's Churchyard and Ludgate Hill, may be seen, carved in stone on the fascia, with their names, his features, with those of Dr. Johnson and Oliver Goldsmith. Messrs. F. Newbery & Sons still make the powder, for which, particularly in certain districts, a steady demand survives. It is a



MR. LIONEL NEWBERY.

curious fact that the firm have not owned outright more than a dozen proprietary medicines during the long period of their existence. Steers's opodeldoc, which is of earlier date, may take rank next to James's powder as one of these. While John Newbery was in Reading he made a contract with Dr. John Hooper of that town for the better selling and disposing of his female pills, and the deed is still in the firm's possession, although the agency has gone elsewhere. Another document which they have is the agreement between John Newbery, great-nuncle of the present partners, and Robert Raikes, of Gloucester (famed for Sunday-school organisation), disclosing "the secret of making Bateman's pectoral drops, of which the father of Robert Raikes was patentee." The contract is dated September 19, 1761, and the price agreed was 8s. for every eighteen bottles, profits, after all deductions, to be divided. These proprietaries are amongst the fourteen comprising the earliest "Catalogue of Medicines," of which a facsimile is published in their present catalogue, issued by John Newbery, by whom they were sold "in conjunction with the several patentees." The firm also own Doughty's lozenges, Berdoe's and "St. Paul's" perfumes, and a few other specialities; but the characteristic of the house from the beginning has been to act as agents.

It would be interesting to trace the changes which have come over the proprietary-medicine business during the past century and a half, but to do so would be no more profitable than the business is at the present day, and we have Mr. Lionel Newbery's authority for saying that in by far too much of it there is no profit at all. They have about 300 pages of "proprieties" in their catalogue, and give house-room and handling to nearly all of them. The profits on some of them are as good as ever, and they help to meet the losses on the most popular articles, while the druggists' sundries part of the business grows in importance year by year. The interviewer cannot fail to be struck with one old-established characteristic of the house which remains. As John Newbery had the confidence of his medico-literary contemporaries, his great-great-grandsons have the esteem and respect of their clients, especially of those for whom they act as special agents, such as the Warners, Jaynes, Dr. Guild, the owners of Cuticura remedies, of Valentine's meat-juice, and of other proprietaries, and the relations seem to be as much those of personal friends as of business men—just as they were between John Newbery and Oliver Goldsmith.

WILLIAM SUTTON & CO.

THE present head of this business, Mr. Frank Tebbutt, claims for his firm a history of 250 years. We have not had the opportunity of getting from him any details of that long



MR. FRANK TEBBUTT.

and eventful record, which would, we should think, reveal many subjects of interest. The firm are known as proprietors of two of our oldest patent medicines—"Daffy's Elixir" and "Bateman's Pectoral Drops."

Personalities.

MR. JOHN BRISTED, managing director of Kemp & Co (Limited), Bombay, left London last Friday evening to resume his duties. Mr. Bristed may be in London again next season.

MR. C. F. BAKER, manager to Messrs. Smith, Stanistreet & Co., Calcutta, is now home for a short holiday. We had a call from Mr. Baker the other day, but he has left London for a month, after which he will return for final business engagements.

MR. EDWIN EDDEN, of West Grove, Edgbaston, Birmingham, whose portrait we publish below, claims to be the oldest wholesale druggist in active business in this country. He is now a member of the firm of Langton, but has been in business on his own account since 1843, when he joined a



Mr. W. Metcalfe at 54 Upper Thames Street, the style of the firm (formerly Jas. Metcalfe & Co.) being then altered to Metcalfe & Edden. Upon Mr. Metcalfe's death Mr. Edden joined Langton Brothers & Scott, which then became Langton, Scott & Edden, and in that firm he has since remained a partner. "I think I may say," writes Mr. Edden, "that I am one of the oldest subscribers to your journal, which I receive regularly."

MR. GEORGE DENBY, chemist, Thames, N.Z., whose letter on the British and foreign drug-trade in New Zealand was printed in our issue of May 30, is a well-known colonial pharmacist. He has been in New Zealand since he was a



young man, having emigrated thither after being for some years assistant with the late Mr. J. A. Rastrick, chemist, Church Street, Woolwich, whose pharmacy has now been closed for nearly twenty years. There are throughout

the world hundreds of men who have received their early training in pharmacy within the metropolitan area, and it is pleasing for us to know that they keep up their connection with the old home and never lose touch with what is going on. Mr. Denby, for example, has been reading *THE CHEMIST AND DRUGGIST* since he was with Mr. Rastrick, and, although we may not rank him as one of our oldest subscribers, he will, we hope, be still on our books when we celebrate our jubilee.

MISS MARGARET C. WADE, a pupil with Mr. Peter Boa, pharmaceutical chemist, Edinburgh, has taken a medal in practical chemistry at the Medical College for Women in Edinburgh.

SIR WILLIAM MACCORMAC, who has succeeded Mr. Christopher Heath in the Presidency of the Royal College of Surgeons, is an Ulster man, just turned 60. He was educated at Queen's College, Belfast, and when 23 years old became surgeon to the Royal Hospital in his native



city. War and London afterwards sought him, and he has been much honoured. He was knighted as far back as 1881 for his work as hon. secretary of the International Medical Congress. He lives in Harley Street, is popular among his fellow-surgeons, and is as witty as they make them in the Green Isle.

Indian News.

(From our Correspondent.)

A SERIOUS CHARGE—A European, named Roy, an assistant with Messrs. Gillon & Co., chemists, Lahore, is charged with having caused the death of his *dhobie*, or native washerman. He denies having beaten the man or thrown water over him, as has been alleged, and says that he only reproved him for dishonesty and irregularity. The case is under judicial investigation by the district Court.

INDIAN MATERIA MEDICA.—Messrs. Thacker, Spink & Co., of Calcutta, publish to-day a new edition of "The Indigenous Drugs of India," which has been produced by the Rai Bahadur Dr. Kanny Lall Dey, in association with Mr. William Mair. Fifty copies of the book have already been purchased by the Government of India. The work is dedicated, with permission, to the Pharmaceutical Society of Great Britain, of which Dr. Dey is a honorary member, and extends to over 400 octavo pages. It will be published in London early next month.

PHARMACISTS IN ARMS.—Volunteering in India is about as universal as the conscription in Germany. Among prominent pharmaceutical volunteers in Calcutta are Mr. W. T. Grice, of Smith, Stanistreet's, who is a lieutenant in "F" the crack company of the Calcutta Volunteer Rifles; Mr. J. Anderson, of Bathgate's, who was till quite recently a hospital sergeant in the same company; and Mr. Andrew Gibb, who is a sergeant also in the same company. Dr. F. K. Butt, of the firm of Smith, Stanistreet & Co., is surgeon-lieutenant in the Presidency Volunteer Rifles; and the City Analyst, Dr. W. J. Simpson, is surgeon-captain in the same battalion.

COMPANY PHARMACY.—The thirty-third annual report of the directors of Messrs. R. Scott Thomson & Co. (Limited), chemists, Calcutta, which has lately been issued, shows total returns for the year amounting to 2,87,992rs. (16,353l.). After deducting all liabilities, and writing off 26,347rs. (about 1,500l.) for bad debts, the divisible balance shown is 14,225rs. (836l.), allowing payment of the usual dividend of 5 per cent per annum. Messrs. Scott Thomson's business is largely retail, partly wholesale. The two larger drug-concerns in Calcutta—Messrs. Smith, Stanistreet & Co. and Messrs. Bathgate & Co.—are private firms. All three are purely pharmaceutical.

THE INDIAN PHARMACOPOEIA.—There is some prospect that a new edition of the Pharmacopœia of India may be the outcome of the proceedings of the Indigenous Drugs' Commission. The present edition, published in 1863, is now regarded as neither an official nor a legal standard. It seems that the original issue was far in excess even of possible requirements. Someone had blundered; and it is said that there is a roomful of copies of this obsolete work at the India Office, and that Government is desirous of getting rid of this incubus before sanctioning the preparation of an edition more in keeping with the times. And yet it was remarked here the other day that the book was selling at a premium. Possibly a Pharmacopœia specially adapted to Indian requirements may be more useful than Dr. Attfield's proposed Imperial Pharmacopœia.

A NEW MERCUROUS SALT.—It has been left to a Bengali chemist—Dr. P. C. Ray, D.Sc., Edin., who is Junior Professor of Chemistry at the Presidency College, Calcutta, and is also connected, as "consulting chemist," with the Bengal Chemical and Pharmaceutical Works, an indigenous concern—to demonstrate that the not unfamiliar yellow crystalline deposit that is obtained by contact of dilute nitric acid with mercury in the cold is mercurous nitrite, $\text{Hg}_2(\text{NO}_2)_2$. This substance is not so much as mentioned in "Roscoe and Schorlemmer," nor is there any reference to it in Watts's "Dictionary of Chemistry." Dr. Ray's discovery has been well received in chemical circles, and, on the recommendation of Dr. Victor Meyer, of Heidelberg, a translation of his memoir, from the *Journal of the Asiatic Society of Bengal*, has been prepared for publication in the *Zeitschrift für Anorganische Chemie*, of Göttingen.

THE INDIGENOUS DRUGS' COMMISSION.—This Commission, appointed by the Government of India at the end of last year, and consisting of Dr. George King, F.R.S., President; Dr. George Watt, Secretary; Dr. J. F. P. McConnell, Professor of Materia Medica in the Medical College, Calcutta; Dr. C. J. H. Warden, Medical Storekeeper to Government, Bengal Command; and Rai Bahadur Kanny Lall Dey, to consider the desirability of extending the use of indigenous drugs in India and the measures to be adopted, has had several sittings, and has submitted a report to Government. No official information has as yet been published, but it is understood that certain recommendations have been made for the consideration of Government. It will depend upon the reply to be made to these whether the labours of the Commission shall be concluded now or whether it will proceed on the lines outlined in the recommendations.

THE IMPERIAL INSTITUTE.—India wants to know when the Imperial Institute is to substantiate the great things that were projected on its establishment. India declares that "so far it has derived no advantage from its connection with the Imperial Institute that are in any way commensurate with what the Institute has received and is receiving from India." The Indian Government believes, however, that such advantages are yet to be secured, and while conceding, not without the grumble of the man whose plenty makes him poor, to the request of the Secretary of State that "the Indian contribution might be made to assume a more substantial character and permanent form," has asked for and received the right of representation on the Executive Council of the Institute. So that with a *quintett* of well-seasoned Anglo-Indians as a special sub-committee, a newly-appointed curator of the extensive Indian Section collections, and a new director of the Research Laboratory, the still largely untapped industrial and economic resources of India will have some prospect of advancement—a bright future in which pharmaceutical interests will share.

Dr. Frederick B. Power.

ON Tuesday evening Mr. Henry S. Wellcome entertained to dinner in the Duke's Room, Holborn Restaurant, a company of about fifty gentlemen connected with medicine, pharmacy and science, the purpose being to meet Dr. Frederick B. Power, who has come from New York to undertake the directorship of the Wellcome Research



DR. FREDERICK B. POWER.

Laboratories on Snow Hill. Dr. Power is an American, and an old classmate of Mr. Wellcome's at the Philadelphia College of Pharmacy. While there young Power carried all before him, and so distinguished himself in chemistry that he was promptly appointed demonstrator in that subject. After that he took the advice of his friends, and entered the Strassburg University as a pupil of the late Professor Flückiger's, and here again distinction met him. From pupil he became the assistant and friend of the learned Flückiger, and subsequently translated some of his works into English. He took the degree of Doctor of Philosophy in due course, and when he returned to his own country was appointed one of the professors in the pharmaceutical department of Madison University, Wisconsin. There he remained for nine years directing his department, then gave up teaching for research-work in Messrs. Fritzsche Brothers' essential-oil laboratories. While he was in Wisconsin Dr. Power gave evidence of his intimate knowledge of research-work, and many papers were issued from his department resulting from the labours of himself and pupils. In his new sphere he quickly became known as one of the best workers on essential oils, and his exceptional experience in that and other departments of pharmaceutical chemistry secured for him a lion's share of the practical work necessary for the revision of the current United States Pharmacopœia. In securing his services for his research laboratories, Mr. Wellcome has no direct commercial object in view, simply recognising that the progress of pharmacy depends upon the measure of pure knowledge which is brought to bear upon it for improvement or perfection. He has secured a house on Snow Hill which is being fitted up as laboratories, and Dr. Power will be assisted by Dr. H. A. D. Jowett, Research Fellow of the Pharmaceutical Society, and others. Tuesday evening's dinner was one of these elegant affairs which Mr. Wellcome knows so well how to arrange. Mr. Wellcome presided, and his managers, Mr. R. Clay Sudlow and Mr. Albert Searl, F.C.S., were in the vice-chairs. Dr. Power sat to the right of the host, and Mr. Fletcher Moulton, Q.C., F.R.S., on the left. The following were also present:—B. F. Stevens (American Government Despatch Agent); Sydney Ringer, M.D., F.R.S., &c.; A. Chune Fletcher, M.R.C.S.; Prof. Alex. Kerr, M.A. (Madison University, U.S.A.); Prof. D. E. Hughes, F.R.S.; William Murrell, M.D.; Prof. Isaac S. Scarf, F.I.C., F.C.S. (City of London College); A. Gordon Salamon, A.R.S.M., F.I.C.; R. L. Jenks, A.C.G.I., F.C.S. (Chief Assistant Chemist Imperial Institute); David Howard, F.I.S., F.C.S.; R. Newton Crane; Prof. R. Meldola, F.R.S. (Technical College, Finsbury); Dr. B. H. Paul, F.C.S.; Prof. P. Carmody, F.I.C. (of Trinidad); D. K. Petersen (of Cape Town, S.A.); T. J. Bokenham, M.R.C.S.; Thomas Whiffen; John Moss, F.I.C.; Charles Umney, F.I.C.; J. Collett Smith; William Martindale, F.C.S.; J. F. Cantwell; T. W. Davies; H. A. D. Jowett, D.Sc.; A. A. Tindall; A. C. Wootton; Horace Townsend (London Editor *New York Herald*); Edward Linstead; S. A. G.

Ramsay (Editor *The London American*); Peter MacEwan, F.C.S.; W. Lloyd Williams, F.I.C.; A. W. Gerrard, F.C.S.; H. Helbing, F.C.S.; J. E. Coudrey (of Adelaide).

The toasts given were:—

- "The Queen," by Professor Kerr.
- "The President of the United States," by Mr. Umney.
- "Dr. Power," by Mr. Wellcome.
- "Science Universal," by Mr. Fletcher Moulton; response by Professor Hughes.
- "Medical Science," by Mr. Newton Crane; response by Dr. Sydney Ringer.
- "Chemical Industry," by Professor Carmody; response by Mr. David Howard.
- "The Press," by Professor Meldola; response by Dr. B. H. Paul.
- "Mr. Wellcome," by Mr. Gordon Salamon.

Mr. Fletcher Moulton created great merriment by his assertion that, notwithstanding the brotherhood of science, every scientific man had the most profound pity for every other working in a different branch of science. He himself had an intimate friend at Cambridge, a coleopterist. He was with him at about two o'clock one morning and watched him as with loving hand he pinned a tropical beetle (caught in Kent) to a cork. "Come to think of it, Moulton," he remarked, as he finished his work, "after beetles all else is trifling." In coupling the toast with the name of Mr. Hughes, F.R.S., the inventor of the writing-telegraph, Mr. Moulton said he had never known any invention so fastidiously disdainful of anything short of absolute perfection as this one. Mr. Hughes, in replying, mentioned that, though he had only patented his invention in this country, he had been paid for it by every foreign government which had adopted it. Dr. Sydney Ringer, in replying for "Medical Science," complimented pharmacists on their work in preparing medicines scientifically, and expressed his opinion that Mr. Wellcome's new research laboratory would be of great service. But, he added, he must appeal to such houses to have mercy on the medical profession. For his own part, at any rate, he was getting an old man, and could not keep pace with the inventions which were brought forward. Mr. David Howard, in the course of a brisk speech, replying to the toast of "Chemical Industry," said that the one thing needed by the manufacturer was Research. They had the text-books, certainly; but the manufacturer who did not know more than the text-books could tell him was already done for. Mr. Howard mentioned that he had himself made quinine for forty-five years; he began to make it when he was twelve years of age. His father and his grandfather had carried on the manufacture of chemicals before him, and even then the firm was only an offshoot of the much older business of Allen & Hanbury's.

The speeches were exceptionally clever and witty, and the references to Dr. Power testified to his modesty as a man and his industry as a chemist. Much, too, was said of the host which must have been gratifying to him, and the pharmaceutical and chemical speakers especially were unanimous in the opinion that his last stroke of enterprise is a gift to his craft. The proceedings were altogether most enjoyable, and an artistic sparkle was given to them by Curt Schulz's Quartette Fantastique, which well deserved the compliment that came from the chair.

THE "SOZODONT" is the name of a 20-foot open sailing-boat which started from New York for Europe last month. Two brothers, Charles by name, are captain and crew.

THE TRADE OF CALCUTTA.—According to the annual report of the Collector of Customs, the trade of Calcutta shows marked and steady increase. During 1895-96 the total reached 85½ crores of rupees (a crore of rupees equals a million sterling), the increase on the previous year being 87 lakhs of rupees (about 52,000l.). Imports of drugs amounted to 20,00,000s. (about 120,000l.), 12,000l. more than in the previous twelvemonth; chemicals to about 100,000l., and oils to over 80,000l. There was a contraction of nearly a million and a half sterling in the export of oil-seeds, due chiefly to a bad season in linseed, of which the shipments have decreased from 2,926,100 to 2,116,259 cwt.

Water-analysis a Hundred Years Ago.

By THOS. B. GROVES.

IN the neighbourhood of Weymouth, issuing from shaley beds strongly impregnated with pyrites, there are numerous sulphur springs; the most considerable, though not perhaps the most potent, being that of Nottingham, some two and a half miles from the borough. This has always had a reputation for medicinal value; but it was not until the end of the last century that steps were taken to inclose the spring, and to furnish certain conveniences in the way of pumps, baths, &c. This action was mainly due to John Crane, physician, at Dorchester, whose work, "An Account of the Nature, Properties, and Medicinal Uses of the Mineral Water at Nottingham," I propose to review. The book is a little duodecimo of 44 pages, with an illustration giving the then appearance of the well. It was printed by T. Lockett, Dorchester (year not stated), and was to be sold for 1s.

The author commences with an attempt to define the taste of the water, and shows some skill in leading up to the inevitable conclusion that it is disgusting. He writes: "This spring, in the opinion of many, resembles very much to the palate a weak solution of sal polychrest: it has been compared to a boiled egg by some, somewhat stale, and by others to rotten eggs." Then, with regard to its specific gravity, "when compared with that of distilled water by means of the hydrostatical balance, the difference between them is so trifling as not to be an object of any consideration on that account, the latter is rather the lighter of the two." One other physical peculiarity he notes—"in colour it has a milky, slight blue tinge, which appears to be considerably heightened by viewing the water in a tin vessel." He then plunges into what passed in that day for chemistry.

"That there is an acidity in this water is not to be doubted in the least, from its property of turning white on being mixed with alkalies, and from its curdling immediately with soap. This acid is most undoubtedly inherent in its sulphur, and affords a perfect confutation of the opinion which that learned physician, Dr. Stahl, most erroneously maintained—viz., 'that acids do not pre-exist in sulphur, but are merely creatures of the fire.' This assertion, the author further states, 'is easily disproved in these later times by all who are become better acquainted with the component parts of this mineral by the progressive improvements made in chemistry.'"

But this acidity, singular enough, co-exists with alkalinity—"that the Nottingham water abounds with an alkali manifestly appears, from an analysis of its component parts, by the usual process of evaporation. The salt which is afterwards extracted from the insoluble residuum, on being well rubbed into raw meat, occasions it to turn very red, in conformity to the well-known property of alkaline nitre." By applying tincture of galls he demonstrates that it has "no chalybeate or ferruginous impregnation," and that it "contains no oker is presumed on the first inspection of the water." Moreover, the stones in the vicinity of the well apparently resemble "common stones, and the neighbouring springs do not differ from common simple water," whatever these may mean. "In evaporating the water its sulphureous smell is entirely removed by the time half the water is exhaled in the operation. The process of evaporating four quarts of the water to dryness in the common way leaves about two scruples or somewhat more of a brown reddish mass. If, however, a glass retort is made use of, and the water is drawn off by a very gentle sand heat with great circumspection, almost a third more may be gained from the same quantity of the water. The salt, which is afterwards extracted from the insoluble residuum, is in the proportion of 10 gr. (of the former) to 2 of the latter. This salt, when mixed with spirit of vitriol, causes a very considerable ebullition, affording thereby essential evidence of its alkaline quality, in addition to what has already been observed. When this salt is rubbed with sal ammoniac it has an nrinous pungent smell, and when it is mixed with salt of tartar it gives off rather an offensive foetid odour."

"It has been observed that a very pretty experiment may be made with this water after being kept a proper time, and this without the trouble of a regular chemical process [such, I suppose, as the writer has already indicated]. By keeping

the Nottingham water in bottles for the space of a twelve-month, or more, it affords a spontaneous partial analysis of itself; light bodies of different colours are observed floating on its surface. These are the sulphureous particles now all collected together, which were originally diffused throughout the substance of the whole. These slender corpuscles, if carefully taken up and dried, and afterwards strewed on a red-hot poker or bar of iron, flame and sparkle beautifully into an infinite variety of colours, resembling a peacock's tail, very elegantly illustrating the formation of the variegated scum so frequently observed on the surface of many mineral waters, sulphureous as well as chalybeate."

It seems that Dr. Crane was not the first in the field, but that he had been preceded by Godfrey in 1719, by Dr. W. Cumming, of Dorchester, in 1740, and by Dr. Rutty in 1749. Their experiments were even more elaborate than his own, the reagents used being solutions of silver, lead, copperas, and alum, sea-water, soap, volatile alkalies (mild and caustic), tincture and powder of galls and such other astringents, syrup of violets, &c. The results obtained are not stated, but they are supposed to "tend indisputably to confirm the opinion universally received and proved by all preceding experiments, that this water is principally impregnated with sulphur and the native alkaline salt or natron with which almost all the mineral waters in France so plentifully abound, and which many affirm to be the true nitre of the antients. This natron, some are of opinion, bears a nearer affinity to sal ammoniac than to saltpetre."

The author's chemistry, however, must not be too severely criticised, nor too much expected of him when in the same field such scientific luminaries as Short, Shaw, Boyle, and Hoffmann had confessedly failed.

The inherent virtues of mineral waters are not to be explained—must probably ever remain involved in doubt and obscurity. The writer must therefore be commended for the next very sensible observation: "It is not to be doubted but that the greater part of mineral waters most assuredly contain certain inherent principles from which their virtues derive their source respectively, which are not to be ascertained by any experiments whatever; they are placed infinitely too far beyond our reach, the imperfections of human nature utterly precluding us from the power of considering them as the objects of sense."

"Thus, for instance, with respect to the inherent specific properties of the Nottingham water now under consideration. Who is able to ascertain positively to which particular quality of it its acknowledged healing virtue is indebted? Is it owing to its sulphureous acid? to its alkaline salt? to a due combination of both, co-existing in this salutary spring? or perhaps, after all, to some active principle in the elementary water itself, not cognisable by the organs of our senses?" It is only fair to say with regard to this statement that it very well expresses the opinion of the best chemists of the present day who, notwithstanding the refinements introduced into the art of water-analysis by such men as Frankland, Wanklyn, Tidy, and others, are free to confess that they are quite unable to account for all, or nearly all, the qualities observable in either potable or medicinal waters.

There follows a disquisition on the remedial qualities of Nottingham water, followed by warnings against its injudicious employment, but this I do not propose to summarise further than by quoting a neat Latin couplet on the title-page:—

Vulnera persanat, maculas terit, ulcera siccant,
Vires restituit; sit tamen arte data.

The condition of the well was very much neglected at this time, its only protection being a low wall with arrangements for dipping the water. It seems that it was due to the author's initiative that steps were taken to properly inclose the spring in a circular building with a suitable pump for delivering the liquid in a pure state; "with an overflow conveyed by a trough to a stone cistern sunk at a proper distance for the purpose of washing diseased animals, the abhorred idea of their being dipped in the well has deterred many people from using the water, and common decency requires that such loathsome objects should be kept from the sight of those who repair to the well to drink the water." One might well be allowed to be somewhat squeamish about the use, whether external or internal, of a water open to such dreadful suspicions. Mangy dog *plus* rotten eggs are surely a most uninviting combination.

The Art of Pharmacists.

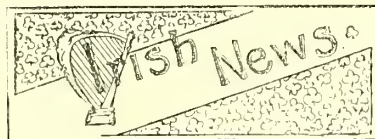
Of more designs than those now printed remain to be dealt [with]. We shall award several prizes in an early issue.



By Bamborough M. Miller,
Blaydon-on-Tyne.



By Caliban.



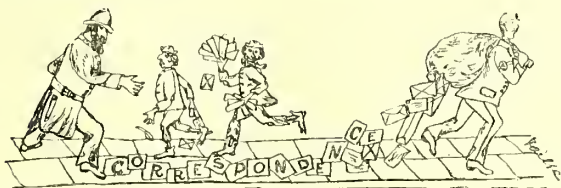
By C. D. Dickens, Liverpool.



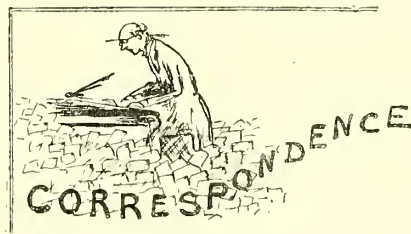
By Bamborough M. Miller, Blaydon-on-Tyne.



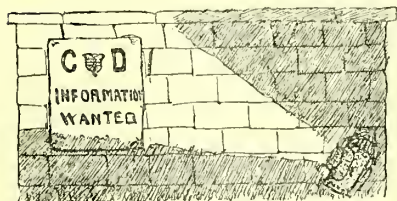
S. Richardson, 16 Torrington Square.



By Joseph A. Center, Edinburgh.



By C. Dickens, Liverpool.



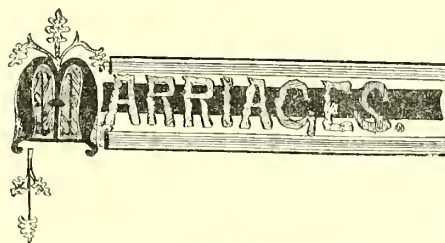
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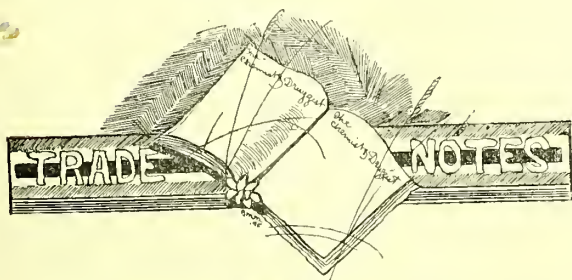
By Bamborough M. Miller, Blaydon-on-Tyne.



By C. Falconer c/o A. Priestman, Barrow.



By Bamborough M. Miller, Blaydon-on-Tyne



By Bamborough M. Miller, Blaydon-on-Tyne.



By Joseph A. Center, Edinburgh.

Something for Summer Sunshine.

BY AN ODD PHARMACIST.

THIS article is intended to give some assistance to those who wish to take advantage of the hot weather by putting before their customers seasonable articles. I am open to conviction that the pharmaceutical ninety-and-nine know perfectly well how to conduct their businesses, and need no instruction from anybody, far less from the odd man. But when a neighbour of mine racks his brains to discover if there is anything there which will help him to construct

A LEMON-SQUASH POWDER

as good as mine, I begin to feel that there may be more "neighbours" who would like to know how to do it. First, then, get *castor* sugar. I emphasise the "*castor*" because the trade is so accustomed to use icing sugar in everything, and there is nothing in the world better than that for caking, which is a bad feature in a lemon-squash powder. To each pound of castor sugar add 20 drops of tincture of saffron and 40 drops of the best lemon oil with 2 drops of essence of bergamot. Mix thoroughly in a large mortar, then add a pound of powdered tartaric acid, again mix, and sift several times through a coarse sieve. The powder is now ready for packing in 3*℥*. parcels. I use magnesia-boxes for the powder. They hold fully an ounce of it, and that is just enough to make a winebottleful of lemon-squash syrup. The directions are:—

Dissolve 1 lb. of sugar in two teacupfuls of water by boiling. Allow to get nearly cold, and remove the scum. Put this powder in a jug, pour the sugar-syrup upon it, stir well with a tablespoon, and when dissolved pour into a brandy bottle. A tablespoonful of the syrup is enough to add to a tumblerful of cold water for a drink. If you wish it to effervesce add as much baking-soda as will lie on a sixpence.

HOME MADE LEMONADE.

An old friend of mine is not above selling the sugar as well for use in making lemonade. His method differs from mine, so I give it. Mix together castor sugar and tartaric acid in the proportion of 1 oz. of acid to the pound of sugar. Make a flavouring essence as follows:—

Oil. limonis .. .. .	..	..	..	..	..	℥xl.
Tinct. aurant recent .. ..	..	..	..	..	..	℥iv.
Ess. vanille .. .. .	..	..	..	..	..	℥xxvj.
S.V.R. ad .. .. .	..	..	..	..	..	℥j.

and fill into 2-drachm bottles. Weigh up a pound of the acidulated sugar in a bag, and in the top insert a bottle of flavouring essence, after the manner of the cup in Benjamin's sack of corn. The directions printed on the bag are these:—

Sprinkle the contents of the small bottle upon the powder, and add one gallon of warm water (not boiling), stirring till dissolved. When cold it is ready for use.

Each packet sells for 9*d.*, and when a hot summer like the present comes along my friend has hard work to meet the demand.

The popular drink nowadays seems to be home-brewed ginger-beer. (Is it on account of the alcohol it contains?) I well remember what a run I had on

GINGER-BEER POWDERS

some years ago, when I had a business in a thriving Midland market town. They were made like this:—

Rad. zingib. cutus. .. ..	..	..	..	..	..	4½ lbs.
Crem. tart. .. .. .	..	..	..	..	..	1 lb. 11 oz.
Acid. tart. .. .. .	..	..	..	..	..	9 oz.
Oil. limonis .. .. .	..	..	..	..	..	1 oz.

Misce bene.

Weigh into 1½-oz. packets and label:—"Add to the contents of this packet 1½ lbs. lump sugar, and pour 1 gallon of boiling water on them. When lukewarm float on the surface a piece of toast, upon which put a tablespoonful of yeast. Allow to ferment a few hours, strain, and bottle in stone bottles, securing the corks with string."

These packets sold for 3*d.*

SALINE.

Discussing these cooling topics reminds me that for the last few years, having had a lot of trouble with my *Saline* on account of its containing chlorate of potash, it struck me to try some other febrifuge. I have made it with perfect success by the following method:—Triturate with great care 1 oz. tinct. aconiti (Fleming) with 5 lbs. of powdered sugar, dry and sift, and mix with 27 lbs. of sodii bicarb. (Howards') and 22½ lbs. of acid. tart. pulv.; mix, sift, and fill into bottles. This is a little more trouble to make than the ordinary salines, but is a grand success. I sell 8-oz. panelled bottles of this for 1*s.* 9*d.*

CUSTARD POWDER.

I am a bit old-fashioned, perhaps, in still selling *Custard-powder*, but I find that people, even now, like something that gives little trouble to make.

Pulv. tragac. .. .. .	..	..	..	..	..	℥ij.
Pulv. farine .. .. .	..	..	..	..	..	1 lb.
P. curcumæ .. .. .	..	..	..	..	..	℥j.
Ess. limonis .. .. .	..	..	..	..	..	℥i.
Ess. amygd. .. .. .	..	..	..	..	..	℥ss.

Mix, and weigh into 1-oz. packets, which sell at 4*d.*

DIRECTIONS.—Sweeten 1½ pint of new milk with sugar to taste, put on the fire, bring to boiling, and pour gradually on the custard-powder, well mixing with a spoon the while.

When cold this forms a delicious custard.

I have often wondered why more is not made by druggists out of heat-infirmities. For example, an enormous number of people suffer during this hot weather from "scalding," and they do not care to say anything about it. We are all more or less bashful about mentioning these matters, and I recognise the bashfulness by making a good show of

SUMMER DUSTING-POWDER.

It is simple in composition, but very effective:—

Farina .. .. .	..	..	..	..	..	1 lb.
Boric acid .. .. .	..	..	..	..	..	1 lb.
Carmine .. .. .	..	..	..	..	..	3 gr.
Oil of rose-geranium .. ..	..	..	..	..	..	20 drops

Triturate the oil and the carmine with an ounce of the farina, add the rest of the powders, mix, and sift until well blended.

This I put up in a sixpenny circular toilet-powder box, two-thirds full, with a cheap puff to fill up the box, and I get 8*d.* for it without a grumble. The directions are: For tender feet dust the powder on the skin morning and evening, and on other parts of the body scalded by the heat dust the powder freely.

Speaking of the feet naturally brings me to "brown boots," which everybody seems to wear nowadays, because they are so comfortable. I have not yet seen the

BROWN BOOT POLISH

which quite hits off the actual requirements of curried leather. They all seem to be concocted on the furniture polish principle, and there is a difference between mahogany and leather. You want for the wood an oil which will give it a polish without soaking in, and there is nothing in the world better than linseed oil. It will not do for leather, however, which needs something that will not harden. Dubbin would do if it were not nasty, but it gives the idea which has been lacking—namely, to use fish oil in making brown-boot polish. My recipe is a modification of one which I copied out of THE CHEMIST AND DRUGGIST several years ago, and I find that it goes well:—

Finest roll annatto .. ..	..	..	..	..	..	℥ss.
Household soap .. .. .	..	..	..	..	..	℥iss.
Yellow wax .. .. .	..	..	..	..	..	℥vj.
Old cod-liver oil .. .. .	..	..	..	..	..	℥iv.
Turpentine .. .. .	..	..	..	..	..	℥x.
Distilled water .. .. .	..	..	..	..	..	℥xxiv.

Cut the annatto into small pieces, put it in a mortar and make it into a thin cream with 3 oz. of boiling water. Dissolve the soap in the rest of the water by heating, and have ready in a Winchester, mixed with the annatto. Melt the wax and cod-liver oil together on a water-bath, and add the turpentine gradually without increasing the heat. Add the mixture 4 oz. at a time to the soap solution, shaking vigorously until all is combined.

Scientific Notes.

Chemistry, Pharmacy, Botany, Materia Medica, &c. Original, Selected, and Translated.

ESTIMATION OF MORPHINE IN OPIUM.

G. LOEFF suggests a novel modification in the assay of opium—viz, the addition of 1 gramme of sodium salicylate to the watery solution of 5 grammes of the drug. This removes the substances which usually hinder the precipitation of the alkaloid.

WATER FREE FROM AMMONIA.

MR. JOSEPH BARNES, F.I.C., states that if a small quantity of bromine is added to ordinary distilled water and the latter boiled for a few minutes, all traces of ammonia will be destroyed. The same result is obtained by allowing the action to go on for several hours in the cold. Much more rapid, however, is the action of an alkaline hypobromite, which will destroy every trace of ammonia in the space of a few minutes in the cold.

INERT INDIAN CANNABIS.

THE *Bulletin of Pharmacy* mentions that in the laboratory of Parke, Davis & Co. recently 1,200 lbs. of very nice-looking *Cannabis indica* was rejected because the drug was found to be physiologically inert. This fact points to the necessity of some pharmacological test being made with the extract before it is put on the market. It is well known to Indian pharmacologists that some Indian hemp is inert, and Pharmacopœias prescribe the flowering or fruiting hops of female plants (which are always active) to ensure the proper effect.

CARBOLISED FATS AND OILS.

REFERENCE was made in this journal some time ago (see vol. xlvii. 493) to observations made independently by Dr. Breslau and Mr. William Duncan on the action of antiseptics when combined with water-free fats and oils, the conclusion being that such antiseptics exert but little of their peculiar influence when water is absent. The same subject has been taken up in another direction by Drs. Scheurlen and Reinhardt, who have obtained most interesting results, for which we are indebted to the *Apotheker Zeitung*. Their manner of experiment was to place in high glasses, of equal capacity and shape, 200 c.c. of water, putting on the top 10 c.c. of the carbolised oil or fat, the latter (10 grammes) being put on paper, and put into the glasses paper upwards; then at the end of the period stated in the table the amount of carbohc acid in the water was determined. The temperature at which the glasses were exposed was 37° C.

Basis	Sp. gr.	Duration of exposure in hours	Percentage of the carbohc acid extracted by the water
Liquid paraffin & 10 p.c. ol. olive	0.880	3	60
Rape oil.. .. .	0.912	6	56
Poppy oil	0.925	4	56
Cocoa-nut oil	0.925	6	56
Sesame oil	0.923	6	56
Olive oil.. .. .	0.925	3	36
Earth-nut oil	0.92	4	32
Resin oil	0.95	1.15	12
Cocoa-butter	0.96	4.3	28.8
Castor oil	0.963	4	14.8
Lanolin, Liebr.. .. .	0.973	4.3	14
Lanolin, anhydr.	0.973	4.3	11.2
Russian mineral oil	—	1.15	7.6
Ungt. paraffini.. .. .	—	1	2.8

These results bring out the interesting fact that carbohc acid cannot be said to be wholly inert in any of these forms, and that its diffusion into aqueous tissues varies in accordance with the oil or fat with which it is combined, the variation being in accordance with the specific gravity of the basis. The lighter the basis the better its adaptability for carbolised preparations.

PARTIAL SYNTHESIS OF CAMPHOR.

BRETT AND DE ROSENBERG, following up an observation by Wislicenus, have prepared homocamphoric acid by saponifying camphor cyanide, converting this into its calcium salt, $C_{11}H_{19}O_2Ca.7H_2O$, and heating it to about 140° C., when they obtained, by distilling the residue in a current of carbonic acid, a syrupy distillate, which, after drying, formed a greyish-white mass. It was purified by steam-distillation, and although it could not be obtained free from impurities, they had sufficient indication that the product resembled natural camphor in properties, and the yield was 70 per cent. of the theoretical amount.

OIL OF THE EGG.

ACCORDING to Paladino and Toso this oil is extracted from the dried yolk of egg either by pressure or by solvents. The yolk contains from 25 to 35 per cent. of oil. As obtained by pressure the oil is perfectly limpid and of a yellow colour. On cooling it becomes viscous, and deposits a crystalline sediment. It readily becomes rancid, and loses its colour on exposure to air and light. Its physical constants were:—Density, 0.9156 at 20° C.; solidifying-point, 8–10° C.; melting-point, 22–22.5° C.; fatty acids (melting-point), 34.5–35° C.; saponification number, 185.2 to 186.7; iodine number, 81.21 to 81.6. The melting was often incomplete, owing to the presence of crystals melting at 145°, which probably consisted of cholesterol.—*Analyst*.

PURIFYING PETROLEUM OILS.

HENSLER points out that the sulphur compounds in petroleum oils belong to the thiophene series, and he has proposed a method for removing them (*Berichte and Phar. Rev.*) which is as follows:—The oil is fractionated so that the illuminating-oil fraction contains but small quantities of substances boiling below 150°. 100 parts of this crude illuminating-oil are heated to boiling in an apparatus provided with a reflux condenser and stirring-apparatus, and 0.8 part of aluminium chloride gradually added. Hydrochloric acid and a considerable quantity of sulphuretted hydrogen escape. After the evolution of gas has ceased it is allowed to cool, and the oil separated from the aluminium-containing resin which has formed. The oil is first washed with water and then with caustic-soda solution, and distilled after the addition of a small quantity of lime.

ASSAY OF BALSAMS AND RESINS.

Dr. KARL DIETERICH, in a recent communication to the Berlin Pharmaceutical Society, deals with recent advances in our knowledge of resins, and gives a good summary of the present position of the chemistry of the benzoin, Peru balsam, storax, ammoniacum, and galbanum. The information advanced will interest those chiefly who are called upon to assay these resins, as the paper concludes with a scheme of analysis. We quote the latter briefly, and refer those who wish fuller particulars to the *Berichte* of the Society, vol. vi., No. 5. In the undernoted paragraphs are mentioned the factors to be determined in order to find out the quality of the specimen:—

Peru balsam.—1. Sp. gr. 2. German Pharmacopœia tests. 3. Acidity by titration of a 2-per-cent. absolute alcohol solution with decinormal alcoholic potash and phenolphthalein. 4. Saponification equivalent by boiling 1 gramme with 50 c.c. normal KHO. 5. Estimation of resin and cinnamen.

Benzoin (Siam and Sumatra).—1. Ph. G. tests. 2. Per cent. soluble in ether. 3. Per cent. insoluble in ether. 4. Per cent. of ash in No. 3. 5. Acidity. 6. Saponification equivalent. 7. Presence of cinnamic acid. 8. Ester equivalent (*i.e.*, saponification equivalent minus acidity).

Storax (crude liquid).—1. 5, 6, and 8 as benzoin. 2. Per cent. of water. 3. Per cent. soluble in alcohol. 4. Per cent. insoluble in alcohol and the ash.

Ammoniacum.—Same as storax with loss at 100° C.

Galbanum.—Same as ammoniacum.

There are some slight modifications in the manipulative details in the case of the last two gum-resins.

"ISOPATHY" is the name which American medical men, give to therapeutic treatment by animal substances, such as the various glands of the body.

Our Pick-me-Up Bottle.

A PRESCRIPTION FOR BUSINESS WORRIES.

THIS is of American origin, but put "Liverpool," &c., in place of "Leavenworth," &c., and it will meet English troubles nicely:—

Take this to the

SIXTEENTH ANNUAL SESSION
OF THE
KANSAS PHARMACEUTICAL ASSOCIATION,
HELD IN
LEAVENWORTH, MAY 21-23, 1895.

For K.P.A. Members and Friends.

R First Session 10 o'clock A.M.
Address of Welcome—R. J. Brown's
President's Address—H. H. Hettinger's, aa .. 15 min.
Fort Leavenworth and Military Drill 2 hr.
Informal Reception—Chickering's 4 hr.
Games, Boating, Contests, and Prizes ½ d.
Old and New Officers, aa 8 min.
Opera House Entertainment 2 hr.
Papers, Discussions, and Railroad Certificates, q.s. .. 3 d.

M. Sig.: Take 3 hours, in Leavenworth, 3 times a day for 3 days.

Repeat in one year.

M.D.

MRS. M. O. MINER,
Secretary.

[SEAL]

No. 449.
\$1.

Taken according to directions, the prescription is guaranteed to immediately relieve from ennui, and effect a permanent cure.

ORDERS WANTED, NOT EXPENSES.

The following letter is said to have been written by a New York house to their travelling representative:—

Mr. Joseph Ernstein,
Columbus, Ohio.

DEAR SIR,—Ve haf received your letter von de 13th mit exbense agount und round list. Also ve do notice dot de vether is beestely und dot business is no goot. Vat ve vant is orders. Ve haf blenty maps in New York von vich to make up round lists, und big families to make exbenses. Also ve dont vont to know the vether: ve can puy all de dermometers ve vant for \$5 a groes, but vat ve do vant is orders. Mr. Ernstein, ve fint in your exbense agount \$2 50 for billiards. Blease dont puy any more billiards for us: vat ve vant is orders. Also ve do see \$7.50 for a horse and buggy: vere is de horse, und vat did you did mit de buggy. De rest von your exbense agount is nix but schleebbers: vy is it you don't ride more by day times.

Ve haf sendet you today by post, two boxes zigars: one oosted \$1.40, und de oder 90c. You can schmoke de 90c. box, and gif de oders on your customers. Ve did sendet you also samples of a necktie vot costet us \$7 a groes. Sell dem for \$7.25 a dozen: if you can't get \$7.25, dake \$2.25. Vat ve vant is orders. Dey is a novelty, as ve haf dem in stock two years und aint sold none.

My bruder says dot you should stop in Hamuldon, Ohio: his cousin, Mark Blum, lifts dere. Louie says dot you should sell Mark a goot bill. Dry him on dose \$7.25 neckties first. Git oot brices,—as he is Louie's cousin. Sell him mostly for cash. Tell him ve vant orders. Also Louie says dot you can leave Columbus at 11.40 in de night, und git to Hamuldon at 3.35 in de morning. Louie says do dis, und you vont need no schleebbers. Ve dont vant no schleebbers: vat ve vant is orders.

Dont date any more bills ahead, as de days is longer in Summer den in Vinter. Louie says dont show Mark Blum, his cousin, any of de goot sellers. Und remember, Mr. Ernstein, mit us, oder you do pizness, oder you dont do noding at all. Vat ve vant is orders.

Yours druly,

New York City, U.S.A.,
May 25, 1896.

PINSKY & CO.

P.S.—N.B.—KEEB DE EXBENSES DOWN.

THE GERMAN PROFESSOR ON HYPNOTISM.

"HYENODISM vos a mendal disorder dot vos raging principally in der noosebapers. It vos a hypertrophy auf der imachination, und der writers on mendal pheenenomons vos first attacked. You might call it a sort auf writer's cramp auf der prain. Der ingrediences peen made auf a fool undt a rascal. Mix thoroughly undt set away in a cool blace. Bud one well authendicated case has been reported, undt dot vos told py a notorious liar auf France. As a defence for der lawyers to sed up in murder driaals it would peen a pudding, as Schiller saidt; but its brincipal use so far already has peen confined to sheap novels undt skyentific makazines. Fife tausand years ago a Greek philosopher hybnodised a rooster shiken mit a straight chalk mark on der floor, undt now, in 1895, der skyentific beeples discofer dot you can hybnodize beeples auf dey aindt got as much prains as dot rooster. Nature got hard feeling toward a vacuum, und auf you aindt got any intelligences auf your own you can absorb dot from somepody else. It was a choyful surbrise to some beeples headts to get a mind inside auf dem py hybnodism auf dey didn't had some alreaty py natural. It's bedder, young mens, dot you cultivate some prains auf your own, aber you debend on hybnodism aber hypydermic inchections auf mendality. In der meandimes I can hybnodize dis class more expeditiously undt skimultaneously mit a glub. It's bedder you enchoy dis peccoliar pheenenomons vile she is goin', pycause she vill soon go down der stream auf dime pehind der plue glass, der roller skate, Koch's lymph, der gold gure, undt pig-headed canes."

A TRAVELLER'S RECORD.

THE *American Druggisist* says this is a private document which a drummer dropped from his pocket-book in a drug-store, and forget to pick it up:—

Miles travelled	2,250
Shown samples	61
Sold goods	34
Number of persons cheated	34
Tried to cheat	61
Lied	33
Been asked to drink	11
Drank	11
Got drunk	11
Changed politics	17
Changed religion	3
Been to church	0
Accompanied girls home from church	17
Girls flirted with	42
Agreed to marry	2
Dodged fare on railroad	5
Goods sold for other firms	5,600
Commission from rival firms	280
Slipped out on hotel-keepers	4
Cigars smoked	200
Cigars given away	3

Business is *geschaeft*.

It represents a three months' journey, we suppose, and is reckoned to be one of the finest things in that line ever accomplished.

OIL OF CELERY-LEAVES is now distilled in Germany. It possesses the powerful aromatic odour and taste of celery and is cheaper than the seed oil.

ODOURLESS DISTILLED WATER can be made, according to Hänsel, by substituting asbestos packing for the rubber packing ordinarily used in still-joints.

AUSTRALIAN JOURNALS OF PHARMACY furnish the Sydney correspondent of the *Pharmaceutical Era* with a topic, and, in the course of his remarks, he says "the only prosperous journal is the *Chemist and Druggist of Australasia*, which is owned and run by the proprietors of THE CHEMIST AND DRUGGIST of London."

Trade Reports.

42 CANNON STREET, E.C., July 22.

Owing to technical reasons connected with the publication of the present issue, we have to close our market report, so far as this section is concerned, on Wednesday night. An account of Thursday's drug-sales, and a summary of the general market changes since last Thursday, will be found in the orange-coloured supplement.

In the *Journal of the Society of Chemical Industry* Mr. Eustace Carey, of the United Alkali Company (Limited), referring to the "Made in Germany" articles (which have now been issued in book-form), points out that the writer of those articles, in speaking of "heavy chemicals," gives figures showing apparently a great decrease in business in 1895 as compared with 1873. The statement shows that in 1873 the exports of heavy chemicals were to the value of close upon 3,000,000*l.*, whereas in 1895 the exports were only some 1,560,000*l.* Quantities, however, are omitted. Had they been given, it would have been seen that the quantity exported has increased, as the following table shows:—

	Tons in 1873	Tons in 1895
Soda-ash	133,779	179,576
" crystals	45,453	27,472
Bicarbonate	8,019	18,887
Caustic soda	33,465	91,388
Bleaching-powder ..	30,843	69,624
Total alkali at 100 per cent.	= 103,910	= 177,512

It must be remembered that 1873 was a year of exceptionally high prices and of high costs, whereas 1895 was perhaps the year of the lowest all-round prices on record.

There are troubles in the sugar-of-milk business in America. Previous to the McKinley Act of 1890, which put a duty equal to 4*d.* per lb. upon the drug, sugar of milk was admitted duty free into the United States, and the country's wants were entirely supplied by European makers. Mr. McKinley stopped all that, and a native industry in *Sacch. lactis* soon arose. Unfortunately, the duty had been put too high. The domestic makers flourished so exceedingly that new plants were laid down right and left, and last year 4*d.* per lb. was accepted by some of the makers under stress of competition. Moreover, the surplus American output was shot out upon the European market (chiefly in Britain) at even lower rates than were obtainable at home, business being done for export at the equivalent of 3½*d.* per lb. In 1894 the duty was lowered to the equivalent of 2½*d.* per lb., which is still stiff enough to keep the American industry going; and we believe that within the last two years the principal sugar-of-milk interests have formed a pool. Now it is reported that at least two new makers are about to start in America, and, with the object of making the path of these new-comers as rough as possible, the old makers are again putting down the price. It is said that, at a selling-figure of 6*d.* per lb., America can produce sugar of milk with a moderate profit.

At the end of the official year 1894-95, there were 8,710 acres of land under cinchona in British India, of which 71 per cent. was in Southern India, and the remainder in Bengal, at Darjeeling. In Southern India 2,409 acres are in the Nilgiris, 1,902 acres in Travancore, 350 acres in Mysore, 33 acres in Coorg, 25 acres in Cochin, and 40 acres in Madras. In Bengal the land under cinchona chiefly belongs to Government, who own 2,351 acres. In Madras, on the other hand, the industry is mostly in private hands, the State plantations covering only 821 acres. During the ten years ending with 1894-95 the

area under cinchona has fallen from 10,418 acres to 8,710 acres. There has been a substantial decline in Bengal, and in Coorg the cultivation has been almost entirely abandoned. The area in the Madras districts has fluctuated greatly. The number of plants in permanent plantations has fallen in the same period from 17¼ millions to 9¾ millions. In 1894-95 a little over seven millions were classed as mature, and nearly 2¾ millions as immature plants. The quantity of bark collected has largely increased. But, so far as the figures relate to Southern India, they have evidently been greatly understated, as they are in every year smaller than the quantities recorded as exported thence to countries out of India. In Bengal practically all the bark produced is manufactured by Government into febrifuge and sulphate of quinine.

	Bark Collected		Exports	
	Madras	Bengal	Madras	Bengal
	Lbs.	Lbs.	Lbs.	Lbs.
1835-86 ..	344,158	223,010	849,742	7,288
1886-87 ..	750,478	255,631	1,252,328	32,881
1887-88 ..	856,316	342,410	1,397,919	51,394
1888-89 ..	1,140,302	455,100	3,042,084	32,006
1889-90 ..	827,884	420,705	1,854,632	—
1890-91 ..	1,656,872	416,272	2,984,126	11,719
1891-92 ..	1,473,204	435,550	2,692,251	1,608
1892-93 ..	2,065,177	459,232	2,813,837	—
1893-94 ..	1,170,801	338,025	1,665,647	—
1894-95 ..	1,449,947	577,682	1,728,418	8,900
Average ..	1,173,514	391,363	2,028,078	14,581

ACETANILID is decidedly firmer, from 1*s.* 1½*d.* to 1*s.* 2*d.* per lb. being now asked, which marks an advance of about ½*d.* on the recent quotations. The cause of the greater firmness is said to be that up to the present the makers have sold acetanilid on the basis of the low prices for aniline oil which ruled some time ago. Now that that article has considerably increased in price it will be necessary to base future transactions in acetanilid on the revised quotation of the crude material.

ACID (CARBOLIC).—Tending lower. Crystals may now be had on the spot at 7*d.* per lb. for 39-40° C., and at 6½*d.* per lb. for 34-35° C. Crude 75 per cent. offers at 2*s.* 4½*d.* to 2*s.* 5*d.*, 60 per cent. at 2*s.* per gallon.

ACID (CITRIC) has made a further advance, sales of good quality having been made at 1*s.* 2½*d.* per lb. from second-hand holders. The two English makers are not quoting for immediate delivery, or, at any rate, their quotations are nominal. They are, however, willing to quote for delivery some time ahead.

ACID (TARTARIC).—Steady, but unchanged in price. *Laves'* brand (B.P.) is quoted at 1*s.* 3*d.*, foreign acid (not guaranteed B.P.) at 1*s.* 2*d.* per lb.

ALCOHOL.—German potato-spirit has slightly advanced recently, but prices still remain very low. For good druggists' qualities the quotation is 6¾*d.* per gallon in bond; for 2,000-gallon lots, packing not included, c.i.f. terms. For perfumer's qualities, same terms, 7¾*d.* is required.

ALOES.—It is a somewhat unusual circumstance that not a single package of either *Curaçao* or *East Indian* aloes will be offered at auction to-morrow. There will, however, be a fair supply of *Cape* aloes, numbering 64 cases, and including some of fair quality.

ARSENIC is again firmer, 23*l.* 10*s.* per ton being to-day's bottom price for best white *English* powder. It is said that for August delivery there is little to be had of this article.

ASA-FETIDA.—After a prolonged period of quietness a fair amount of business has lately been transacted in this article, partly for export (chiefly to America), and partly for the home trade. The prices paid ranged from 30*s.* for inferior up to 55*s.* for good pinky and grey mixed block. Some of the parcels, which sold at from 23*s.* to 24*s.* at auction recently, are now held for about 30*s.* per cwt. It is said that exporters in India and on the Persian Gulf do not care to send forward supplies even at the present rates.

ASPHALTUM.—The market has recently been cleared of *Egyptian*, at about 50s. per cwt. The quotation is now more or less nominal. *Syrian* asphaltum has also been in improved demand, at steady rates. The quotations run from 25s. to 30s. for good quality.

BLEACHING-POWDER still offers at 7l. 15s. per ton on the spot, at 7l. f.o.b. at Liverpool, and on the Tyne the quotation for shipment to the Continent is 6l. 10s. per ton., f.o.b.

BORAX.—The lowest spot price for refined crystals is 18l. 10s. per ton. Market steady.

BUCHU.—Round leaves remain plentiful, and a fair quantity will be offered at auction to-morrow. It has been found, however, that good long buchus have become extremely scarce lately, and at present none appear to be offering from the importers, while second-hand holders ask from 8d. to 10d. per lb.

CAFFEINE.—It is reported that the importation of denatured tea for caffeine-making into the United States has been prohibited. This decision has considerably affected the business of one of the German firms, who have put up a special denaturing-plant for this purpose in London.

CAMPBOR (CRUDE)—Quotations have varied lately since our last report. On the spot they close decidedly firmer, but for shipment the prices have somewhat eased off since yesterday. It is worth noting that the syndicate brokers are not in the market at all, so far as camphor for shipment is concerned, although they continue to make some sales on the spot at high rates. About 500 piculs are reported to have been sold this week, *Formosa* on the spot at 120s. (125s. is asked now) and *Japan* at 130s. per cwt., although as much as 137s. 6d. is asked in some quarters. It is said that business in *Formosa* camphor for July-August shipment has been done at 115s. per cwt., c.i.f. terms; but to-day there are sellers in the same position at 107s. 6d. If the syndicate should decide to enter the market, and to offer for October shipment, prices would no doubt recede.

CAMPBOR (REFINED).—The English manufacturers have made no alteration in their quotation, 1s. 5d. per lb. being their bottom price for bells in 1-ton lots. The increase in price made by one of the German refiners and mentioned in our last issue is maintained. Another maker's agent states that he has no quotation at present, and a second-hand holder, who has been selling at very close rates lately, has raised his nominal price to 1s. 6d., though he states he would accept 1s. 5½d. per lb.

CANARY-SEED has recovered 1s. to 2s. from the lowest level recently touched, but it still remains very cheap, *Turkish* being still obtainable on the spot at 28s. per quarter.

CHAMOMILES.—New crop *Belgian* flowers are now being offered, none, however, have as yet reached London. The opening quotation for the season was 70s. per cwt. for fine pale quality, but to-day there are sellers of the same variety at about 60s. per cwt.

CINCHONA.—The exports of cinchona from Ceylon from January 1 to June 16 have been: in 1896, 570,361 lbs.; in 1895, 471,236 lbs. Further details received of last week's Amsterdam auctions show that there was practically no competition excepting for good to fine barks. All these, however, realised steady rates. The same applies to druggists' barks, of which fine qualities were in demand at good rates, while ordinary grades were entirely neglected. The richest parcel of bark offered at auction was one containing the equivalent of 10.84 per cent. of sulphate of quinine. It consisted of 33 bales crushed *Ledger*, and sold at the rate of 33¼c. per half-kilo. At a rummage sale of various descriptions of merchandise abandoned by the owners, held to-day under the auspices of the Dock Company, 132 bales of *Cuprea* and *Soft Colombian* barks, with other descriptions of now almost worthless *South American* kinds, were offered for sale without reserve. The oldest parcel was one imported on July 3, 1877, and consisted of three serons of a flat bark, which realised 1½d. per lb. The remainder, also imported 1879 and 1884, brought from ½d. to ¾d. per lb. There has been an arrival of 205 packages *West African* bark from Lisbon this week.

CREAM OF TARTAR.—Again lower. Best white *French* crystals may now be had on the spot at 94s. 6d.; powder 96s. to 97s.

CUBEBS remain quite neglected. None will be offered at auction to-morrow. The cubeb exports from Java in the eleven-monthly periods between July 1 and May 31 of the past five years have been as follows:—

Year	1895-6	1894-5	1893-4	1892-3	1891-2
Piculs	2,894	4,768	3,501	2,720	1,742

DRAGON'S-BLOOD.—To-morrow's auctions will include two cases of recently-imported dragon's-blood of unusually fine fiery quality, in lump. They are expected to realise a good price, valuations running from 10l. to 11l. per cwt.

GALLS.—Good *Chinese* are offered at 56s. per cwt. on the spot. Fair *Japan* galls are quoted at 55s. per cwt. *Turkish* galls are dull of sale so far as blue and white *Bassorah* are concerned. Green varieties, however, are in demand at from 42s. 6d. to 45s. per cwt. Small sales of blue galls have recently been made at 51s. to 53s. per cwt.

GENTIAN-ROOT.—Slightly easier. Good *French* offers at 19s. per cwt.

GLYCERINE.—Unchanged, but extremely firmly held at from 70s. up to 76s. per cwt., according to brand and position. It is said that a further advance in the quotations of some of the German manufacturers is daily anticipated.

INSECT-FLOWERS.—The quotations from Trieste remain firm, new closed flowers being held at from 185s. to 200s. per cwt.; open at from 120s. to 130s. per cwt., c.i.f. For old closed flowers 166s., c.i.f., is asked, and business has been done this week in open flowers of old crop and very ordinary quality at 95s. per cwt. on the spot. For fine, wild, closed flowers of the new crop, 225s., c.i.f., is said to be required. Powder offers, according to quality, at from 6d. to 9d. per lb. for non-guaranteed, and from 10d. to 1s. 3d. for guaranteed pure, the difference in price being partly accounted for by the variety of the flowers from which this guaranteed pure powder is ground.

IPECACUANHA.—The supplies at to-morrow's auctions will be fairly extensive. It is expected that there will be some decline in the price. Nominally, however, holders are extremely firm, though we have not heard that anything more than 6s. 2d., the price mentioned in our last issue, has been paid for *Rio* root on the spot. For good plump, but slightly damaged, *Colombian* 5s. per lb. is asked.

MANNA.—The crop prospects in Italy are described as very poor, and some advance in price, mainly speculative, has consequently taken place.

MENTHOL is very flat; 9s. 6d. per lb. appears to be the bottom spot quotation. There do not appear to be any sellers for shipment at recent prices. It is said that all that could be found for June-August shipment is cleared out.

MORPHIA.—On Monday, owing to the advance in opium, British morphia-manufacturers advanced their quotations by 3d. per lb., powder being now quoted at 5s.; crystals at 5s. 2d. per oz. for 1-oz. lots. *Codeia* has been raised 6d. per oz., from 11s. 3d. to 11s. 6d. being the current quotation.

MUSK.—A fair supply, including some very fine *Tonquin* pods, offers at auction to-morrow. Privately the market is firm, and in first hand there is very little of fine blue skin pod musk to be had, the quotation for this variety being from 74s. 6d. to 75s. per cz., while for fine thin-skinned first-pile pods 60s. is asked.

OIL (CASTOR).—*French* castor oil is again quoted at higher rates, supplies for July delivery being particularly scarce. The following are the current prices:—Medicinal oil in cases, 25s.; ditto in barrels, 22s. 6d.; first pressings, 20s. 6d.; second pressings, 19s. 6d.—all per cwt., f.o.b. Marseilles.

OPIMUM.—The movement in this article has been the principal feature in the drug-market this week, and the London quotation closes at an average advance of about 8d. to 9d. per lb. on those of last Thursday. A good business has been done in *Druggists'* and *Manufacturing* kinds since Monday, and a small trade in *Soft-shipping* kinds. For fine *Druggists'* opium 10s. per lb., it is said, has been refused, after sales had been made at somewhat lower rates. Good *Manufacturing* has changed hands at 9s. 6d. per lb., and there are now buyers at 10s. for similar quality. Most of the opium

of this grade on the market, however, is very firmly held. *Soft-shipping* has sold in the same way at 12s. 6d. per lb. for good quality, but since this transaction the price has been raised. As regards *Persian* opium, some business has been done in ordinary grades without alteration in prices. The quotations remain from 10s. to 12s., according to quality.

POTASH SALTS.—*Chlorate* quiet, at 4½d. to 4¾d. per lb., f.o.b., Liverpool. *Permanganate* unaltered.

QUASSIA.—Rather firmer. Since our last report bids of 5l. per ton for fair logs have been refused.

QUICKSILVER remains very quiet, at 6l. 7s. 6d. per bottle from the importers, and 6d. less from second-hand holders.

QUININE remains a dead letter. The nearest spot quotation for bulk-quinine is 12½d. per oz., but there are no buyers at that figure, and it is doubtful whether there would be many sellers. We are informed that *Imperial* quinine has been sold in bulk at 12¾d. per oz. by the manufacturers lately.

RHUBARB.—The following figures show the statistical movement of all varieties of rhubarb in the London warehouses during the first halves of the last six years:—

—	1896	1895	1894	1893	1892	1891
Stock, June 30, pkgs.	478	979	618	836	276	492
Imported, Jan. 1 to June 30, pkgs.	218	875	353	566	515	371
Delivered, Jan. 1 to June 30, "	683	1,651	664	707	646	719

The exports of rhubarb from Shanghai to all parts in 1895 amounted to 7,412 piculs, declared value 190,233 Haikwan taels.

SENNA.—The supply of *Alexandrian* senna remains quite small, and holders are firm. *Pods* are particularly scarce, 6½d. having been paid for fair quality. Picked leaves are quoted nominally at 10d. to 1s, broken leaves at 7d. to 8d. per lb. A fair supply of *Tinnevely* leaves will be offered at auction to-morrow. The bulk of it, however, is second-hand stuff.

SHELLAC has been very dull of sale. No public sales were held this week, and privately the market is sluggish, *Garnet* lac, AC, being quoted at 84s, and *Orange*, TN, at 87s. per cwt. on the spot. The quotation of TN lac for October delivery is 90s. per cwt.

SPERMACELE.—Tending somewhat higher. For *American* refined 1s. 4½d. per lb. is now asked on the spot. *Chilian* refined is selling in Liverpool at 1s. 3d. per lb.

SPICES.—At auction 112 barrels *Jamaica Ginger* sold with good competition at an advance of about 2s. per cwt.; ordinary to medium dull, 82s. to 82s. 6d.; common dark and lean, 78s. to 81s. per cwt. *Cochin* ginger is steady; about 350 packages sold at 33s. 6d. to 34s. for fair washed rough, 18s. to 25s. for low to common ends, and 66s. to 70s. for ordinary to fair bold cut. Rough mouldy *Japan* ginger realised 15s. 6d. per cwt. *Nutmegs* are again lower, and easier rates were also accepted for *Mace*; fair to fine pale *West Indian* sold at 1s. 2d. to 2s. per lb. *Cloves* flat. Good picked *Penang* sold at 6¾d. per lb. For 500 bales *Zanzibar*, August-October delivery, 1¾d. per lb. has been accepted. *Pimento* keeps firm—ordinary to fair, 2½d. to 2¾d. per lb. *Black pepper* keeps dull at 2¼d. per lb. for washed *Singapore*. *Pearl tapioca* is lower. *Arrowroot* flat. *Zanzibar Chillies* firm at 45s. per cwt. for good bright, and from 35s. to 40s. per cwt. for ordinary to fair.

SULPHUR firm, but unchanged; foreign flowers at 5l. 15s., roll 5l. 12s. 6d. per ton.

TRAGACANTH.—Very slow of sale, but firmly held; first pale druggists' kinds at 14l.; seconds, at 12l. to 13l. per cwt.

TURMERIC remains slow of sale. Fair quality *Bengal* is quoted, according to quality, at 7s. 6d. to 8s. per cwt. on the spot, and at 7s. per cwt., c.i.f. terms.

WAX (JAPAN).—Rather firmer on the spot, 33s. 6d. to 34s. per cwt. being asked for good pale squares. For shipment the quotation is still disproportionately high, viz. 37s. 6d., c.i.f. terms.

London Drug Statistics.

THE following statistics relate to the movement of some of the leading drugs in the London public warehouses in the course of the first six months of 1896 and 1895—January 1 to June 30. The statistics are supplied by the warehouses in question, and their accuracy cannot be guaranteed. It should also be noted that certain warehouses refuse to supply returns, and that several figures, notably those relating to oils of star-anise and cassia and to camphor, are therefore incomplete.

Article	Stocks		Imported		Delivered	
	1896	1895	1896	1895	1896	1895
Aloes.....cs, &c.	3,977	4,849	1,197	1,236	2,211	1,015
.....gourds	2,207	2,832	—	—	492	391
Anise, Star.....cs	228	410	1	41	44	77
Arrowroot.....brls	17,240	16,735	11,059	16,537	7,468	9,822
.....bxs & tins	1,855	2,005	513	1,087	717	1,448
Balsams (all Medicinal).....cs, &c.	994	1,817	263	1,596	732	935
Borax.....pkgs	10	—	—	—	31	—
Calumba.....bgs	311	523	15	122	896	611
Camphor (crude) pkgs	14,314	3,651	2,949	3,946	5,908	4,609
Cardamoms.....cs, &c.	693	1,372	1,279	2,179	1,562	1,539
Cinchona-bark:—						
S. American.....cs	56	62	—	—	2	2
.....bbs, &c.	15,159	18,709	1,571	2,980	3,631	4,292
E.L., Ceylon, fcs	236	243	175	138	149	86
and Java.....bbs	9,247	11,467	10,455	8,389	10,379	8,767
Cocculus Ind.....bgs	146	232	147	90	92	52
Creom of Tartar cks	5	—	4	17	4	17
Cubeb.....bgs	358	390	32	196	70	192
Cutch.....tins	2,058	2,262	1,333	778	987	1,298
Dragon's Blood.....cs	151	195	84	151	112	143
Galls, China & Jap.,	1,188	555	1,331	833	650	770
Trky, & Prsn. bgs	6,591	7,695	4,066	4,666	2,422	4,246
Gambier.....tins	1,040	507	2,813	3,248	2,522	3,209
Gums—						
Ammoniacum pkgs	50	164	19	168	33	79
Animi & Copal,	11,702	11,877	13,722	11,523	10,717	9,365
Acacia....."	16,589	12,921	16,318	11,813	10,246	9,159
Asafetida....."	692	1,054	736	1,590	807	709
Benzoin....."	2,600	2,381	2,797	2,509	1,705	1,854
Damar....."	2,795	3,591	4,454	5,507	3,544	4,963
Galbanum....."	2	2	—	—	—	9
Gamboge....."	241	194	253	162	171	176
Guaiacum....."	56	7	67	46	68	85
Kino....."	20	18	9	28	3	19
Kowrie.....tins (net)	981	1,599	1,259	1,468	1,715	1,659
Mastic.....pkgs	28	17	21	—	14	4
Myrrh....."	681	508	357	343	231	316
Olibanum....."	3,979	4,973	5,236	5,667	3,312	3,565
Sandarach....."	442	682	661	653	461	724
Tragacanth....."	5,021	4,826	5,956	4,502	2,914	3,423
Guttapercha.....tins	1,879	2,369	589	972	793	531
Indiarubber, E.L. "	127	203	299	395	363	376
Madagascar....."	72	45	79	199	55	235
S. American....."	120	67	193	139	156	134
African, &c....."	90	153	149	181	223	163
Ipecacuanha (Rio) pkgs	429	676	251	347	406	442
Other kinds pkgs	15	22	75	74	104	144
Jalap.....bbs	302	317	274	355	224	227
Lac Dye.....chts	2,741	2,902	—	—	58	10
Nux Vomica.....pkgs	479	1,080	239	1,206	808	1,024
Oils—						
Anise.....cs	69	228	25	389	86	217
Cassia....."	21	143	19	44	29	30
Castor.....cs	85	91	574	189	570	183
.....cs	1,074	1,236	994	1,010	1,005	1,318
Cocoa-nut.....tins	432	1,402	955	2,654	1,266	1,996
Olive.....cs, &c.	1,148	856	1,834	980	1,131	1,218
Palm.....tins	18	18	48	46	33	34
Quinine salts.....lbs.	109,421	141,453	—	—	—	—
Rhubarb.....chts	478	979	218	875	663	1,051
Safflower.....bbs, &c.	100	118	65	1	44	30
Sarsaparilla.....bbs	235	410	517	702	493	631
Senna.....bbs, &c.	840	1,507	931	1,352	2,688	2,193
Shellac, Orange.....cs	23,736	11,923	23,427	13,790	19,379	14,768
Garnet....."	5,767	8,528	4,063	11,649	4,181	4,915
Button....."	7,547	3,692	7,021	5,331	5,602	5,630
Total.....	37,050	24,148	40,516	30,770	29,185	25,313
Turmeric, Bengl. tins	653	299	71	82	173	151
Other kinds....."	499	470	68	244	206	294
Total.....tins	1,152	769	139	326	379	445
Vermilion.....chts, &c.	12	17	17	13	21	12
Wax (bees') bbs & tins	1,139	1,053	1,368	2,490	1,445	1,813
.....cs, &c.	1,251	1,205	1,528	2,594	1,275	2,421
(Japan) cs, &c.	203	1,079	106	380	368	548



Memoranda for Correspondents.

In letters for publication correspondents are requested to express their views as concisely as possible.

Correspondents should write on one side of the paper only, and devote a separate piece of paper to each subject of inquiry.

The name and address of the writer should accompany all communications with, if desired, a distinctive nom-de-plume.

English Specialities in France.

SIR,—English pharmacists established in business in France, and especially English manufacturers of pharmaceutical specialities, will have read with interest the recent articles and letters in *THE CHEMIST AND DRUGGIST* regarding the difficulties connected with the introduction of Foreign specialities into France.

I can well understand that Mr. Nicholls feels at Nice all the annoyance of the vexatious system at present prevailing, but not more so than we do in Paris. The question has now been brought up by you, Sir, in a way which enables the parties interested to take up the threads of the discussion and to have the matter thoroughly thrashed out. I am convinced, after reading the letter from Her Majesty's representative in France to the president of the British Chamber of Commerce at Nice, that the Embassy officials here have not thoroughly understood the question or feel that they are powerless to assist. The reply is excellent as an academical production, but reminds me of a reference made some years ago by the late Lord Lytton to the relations between the British Embassy and the English commercial community in Paris. He said in an after-dinner speech, "No doubt you think that I ought to be able to render you material assistance in matters of commerce, but in reality I am, with regard to them, pretty much in the predicament of two men who were returning home together after partaking of an excellent dinner. One of them fell into the gutter and begged his friend to help him up, to which the latter replied, 'I cannot help you up, but I can come and lie down along side of you if you like.'" This position of the British Embassy in Paris remains the same to-day. But if any action is to be taken with regard to obtaining increased facilities for the introduction of pharmaceutical specialities into France, the present moment is particularly propitious. As Mr. Hardinge has remarked, the new law on pharmacy is at present under the consideration of the French Parliament, and I am sure that an attempt to have the restrictions regarding foreign preparations removed would receive more attention at this moment than at any other time perhaps within the next fifty years. It is unfortunate that we should just now be enjoying the advantages of being under an ultra-protectionist government, but the political wheel of fortune in France has given us so many surprises in the past, that the chance of having an ultra free-trading prime minister at a near date is not beyond reasonable hope. If I may be permitted a suggestion, I would say that the British Chamber of Commerce and the American Chamber of Commerce in Paris are the two bodies who could be approached on the subject with the most utility. The subject was before the British Chamber in February last. I mention the American Chamber as United States manufacturers would also have great interest to see their goods sold in France, the influx of well-to-do Americans being as great as that of English visitors. Should the foreign chemists established in France, doing an Anglo-American trade, really think it to their interest to obtain increased facilities for the sale of pharmaceutical specialities from abroad in this country, it seems a comparatively easy thing for them to form a committee and to approach the Chambers of Commerce above-mentioned, with all the necessary data, to enable the subject to be usefully brought under the notice of the French Minister of Commerce. On the other hand, manufacturers in England could doubtless have their views of the question brought before the British Chamber of

Commerce here by some organisation in Britain. I may be wrong, but I have an impression that all English pharmacists in business here are not so anxious for the unlimited importation of foreign specialities into France as Mr. Nicholls appears to be. It is, however, useful to remind you, Sir, that the framers of the new pharmacy law have by no means overlooked the subject of foreign pharmaceutical preparations in their labours. Some eighteen months ago, no less an authority than M. Jungfleisch raised the alarm that the proposed new law seemed to offer too great advantages to foreign makers. M. Jungfleisch expressed the opinion that "the existing restrictions are in no way unjust to foreigners, while they allow visitors to France sufficient facilities to follow any mode of treatment they may have been accustomed to at home," and he added with a true "patriotic" and protectionist spirit, "France is in this way almost exclusively reserved for the sale of French preparations, in spite of the envy which a rich clientèle excites abroad." The phrase in the new law to which M. Jungfleisch took exception, reads as follows:—"The sale, manufacture, and announcement is prohibited of all medicaments of which the labels do not bear an indication of the name and dose of the active substances forming their basis." He considered this article of the law would give foreigners the privilege of introducing many more specialities than at present exist, and he spoke of it as a "princely present to aliens." I mention M. Jungfleisch's opinion merely to give the French view of the case, and it is not without interest to call to mind that French provincial pharmacists show themselves very much in favour of the total suppression of specialities, though it is almost idle to discuss such a radical measure. In conclusion, I may repeat that the present moment seems propitious for endeavouring to obtain increased facilities for introducing foreign pharmaceutical preparations into France, and it remains with the parties interested to make the effort.

I am, Sir, yours faithfully,

Paris, July 20. DIXI. (131/10)

Unprofitable Proprietaries.

Three chemists write to us this week over *noms de plume* arguing that chemists should refuse to stock proprietary medicines on which there is no profit. It is no use to repeat the very obvious arguments which are used, but we may quote a passage from each letter.

"Smilax" (129/9) considers that Messrs. Carter have given the cutters a practical object-lesson. The profits which the cutters and chemists, who are compelled to retaliate, have been throwing away Messrs. Carter intend to have, and the retailer will still be selling at the same profit of $\frac{1}{4}$ d. or $\frac{1}{2}$ d. on each transaction. The remedy, "Smilax" thinks, is in each chemist's hands. He can refuse to stock any more, and be the better for asserting his manhood.

"Cock Sparrow" (128/70) says:—"Hitherto I have sold these pills for $10\frac{1}{2}$ d., and I now find it ever so much easier to sell liver-pills surrounded by no puffery. When the public are asked to pay the enhanced charge of Mr. Crow, the glum looks they put on are a strong incentive for one to suggest one's own make, which, for two good reasons, is worth doing—viz, we know what we recommend, and what is not to be sneered at, we gain fair remuneration."

"I am of opinion," writes "A Country Chemist" (130/22), "that if we, as a body, would only have the courage to despise the miserable profits upon these proprietary articles, and sternly refuse to stock them, we should ultimately obtain greater benefit than from any anti-cutting associations which, whatever form they might take, considering the number of interests involved, must of necessity be somewhat complicated in their organisation."

Carter's Pills.

SIR,—The act which some of your correspondents, rightly or wrongly, attribute to the managers of Messrs. Boots & Co. seems to me an ordinary businesslike one. It is generally understood that every tradesman is justified in buying in the cheapest market, and this they were trying to do; and the only way for others to be prepared for such orders is to subscribe to the *C. & D.*, and read it.

Yours,

WANDERER. (131/46.)

The Benevolent Fund.

SIR,—Before the next election of annuitants for the Benevolent Fund I should like to protest against the large amount of canvassing that goes on on behalf of candidates.

Surely this is not the way by which the most deserving secure assistance, for the success of the applicants is to a very large extent governed by the number of friends they can gather to their assistance. Thus an applicant from some out-of-the-world spot, who has had no opportunity of becoming known to those who could influence votes on his behalf, be he ever so deserving, is probably out of the running. The canvassing is done before voters have had any opportunity of studying the merits of each case, and so when the voting paper arrives the voter often finds he has promised to assist the least deserving case of all.

Let the election take place simply on the merits of each candidate, soliciting votes being considered a disqualification (especially when done, as last year, by the President of the Society and members of the Council), and I think the election would be fairer in its results.

I am, Sir, yours &c.,

Potters Bar, July 20.

H. B. SHARMAN.

Insects and Drugs.

SIR,—Mr. C. C. Bell's letter in to-day's issue prompts me to say that my experience of *Taraxacum radix* does not tally with Professor Sayre's. I remember once opening a parcel of the drug before a customer, and its condition was such that the purchaser suggested that it might save him the trouble of carrying it home—it could walk there.

Yours,

Horwich, July 18.

S. PHILLIPS.

Chemists' Indemnity Insurances.

SIR,—I am prompted to ask two questions:—(1) How can we afford to pay a premium of 10s. per cent, *plus* the 2s 6d. per head charge, equal, in the case of an indemnity of 2,800l. (the Harrop Compensation amount), to an annual premium of 14l., *plus* the per head charge? (2) Can we not, *inter se*, effect this more economically than any office at present offers to do for us?

My plan is this—Establish a "mutual indemnity society," the control of which should be in the hands of a committee, popularly elected. Enrol members on payment of an entrance-fee. Insure any member for an amount not less than 100l. nor more than 500l. for every person engaged in the sale or mixing of drugs in his shop. For this, charge a nominal premium of 1s. per cent. (which would cover office expenses), and then, in the event of a member of the Society making a "disastrous" mistake, make a call on each member of the Society to get in the desired sum, such call being in proportion to the amount of his indemnity. Naturally, the liability would have to be limited—say, for instance, that the call should in no case exceed 1 per cent. of his indemnity. Example: A has three engaged in his shop; he pays 6s. per annum for an insurance of 600l., which amount the Society would pay to him were a verdict given against him for compensation; and when called upon to meet a compensation amount his limited liability would be 6l.

Perhaps others may be disposed to consider the question.

I am, dear Sir, yours faithfully,

Bingham, July 10.

CHAS. C. H. CADGE.

The Acetylene Explosion.

SIR,—The sad accident to Mr. Lennox when engaged at the Royal Institution experimenting on acetylene has, I presume, been carefully inquired into; but no statement has, to my knowledge, been made as to the true cause of the explosion. Could you enlighten me on the point? I wish to know whether the rupture of the pressure-gauge was a purely mechanical effect, or whether chemical forces were concerned in it.

Yours,

Poole, July 13.

T. B. G.

[There is no doubt that the cause of the accident at the Royal Institution to the pressure-gauge of the acetylene-apparatus was purely mechanical. Whilst no official intimation has been given, we are informed on good

authority that the pressure was taken some time before the explosion, that afterwards the amount of calcium carbide in the generator was weighed, and that, even apart from the information yielded by these facts, the rupture of the gauge was quite clearly due to high pressure with a possible flaw in the metal.]

The Minor Figures.

SIR,—In the *C. & D.* on Saturday last you stated the number of candidates who had passed the Minor in London, but only gave about half the names. Why were the others excluded? WANDERER. (131/46.)

[According to the official list supplied to us 136 passed and 72 failed. It should have been 136 failed and 72 passed. The names of the 72 were printed.]

DISPENSING NOTES.

Correspondents should consult "The Art of Dispensing" in regard to dispensing difficulties. Difficulties not explained therein may be sent to the Editor, who invites a general expression of opinion upon the under-mentioned topics.

What is Ung. Plumbi Diacet.?

SIR,—This is another case in which the Pharmacopœia and pharmaceutical intelligence must be our guide.

Without claiming much of the latter, I should dispense ung. plumbi acetat. B.P. for the above (which is truly diacetate, and is not to be confounded with the sub- or oxy-acetate). For ung. plumbi subacetat. I should dispense the ung. glycerinum plumbi subacet.

I am, Sir, yours obediently,

Kingston-on-Thames.

C. N. COLES.

Chlorodyne.

SIR,—Could you kindly, in your next issue, inform me what "chlorodyne" is in the following prescription?—

Chlorodyne	..	..	..	..	..	5ss.
Sod. bicarb.	..	..	..	..	..	5i.
Tr. gent. co.	..	..	..	..	..	5iij.
Aq. ad	..	..	..	..	..	5vj.

M.

I dispensed Collis Browne's chlorodyne, and my action was criticised, it being considered that "tinct. chloroformi et morphinæ" is the correct preparation to use.

Yours faithfully,

July 9.

CHLORODYNE. (119/4.)

[This matter has often been discussed, and always with the same result—viz., adherence to the dispensing aphorism, "When chlorodyne is ordered in prescriptions give Dr. Collis Browne's." The best houses adopt this line of action. Tr. chloroformi et morphinæ is not chlorodyne, although it is understood to be an imitation.]

Vin. Ferri Mixture.

SIR,—Could you kindly give me any information as to the following prescription?—

Liq. arsenicalis	..	..	..	..	..	5ij.
Vin. ferri ad	..	..	..	..	..	5iij.

3j. ter in die.

The first time it was dispensed it turned out a muddy mixture; the second time it was dispensed and turned out thicker than before; and now, with the same batch of liq. arsen. and vin. ferri, we find it impossible by several methods to produce anything but a perfectly transparent mixture. The customer has now complained of it varying so much.

Yours faithfully,

BORAX. (124/38.)

[There are few pharmacopœial medicines so variable in composition as vinum ferri. Sometimes it contains a fair percentage of iron, sometimes none at all; but whether little or much, it is obvious that the salt of iron is bound to be one

of the most easily precipitable, so that when it meets such a good precipitant as the potassium carbonate of the liquor arsenicalis, down comes the iron as a finely-divided hydrocarbonate. It is for that reason we recommend in "The Art of Dispensing" that when arsenic is given with vinum ferri it should always be as liq. arsenici hydrochloricus.]

What is Acet. Destil.?

SIR,—I should like to have the opinion of yourself and subscribers on the following dispensing point. The prescription runs—

Tr. canth.	..	..	..	..	5iij.
Aq. mellis	..	..	..	..	3ss.
Acet. destill.	..	..	..	..	5i.
Acet. arom.	..	..	..	..	5j.
Ol. rosmar.	..	..	..	..	5ss.
Ol. lavand.	..	..	..	..	5ss.
Aque rose ad	..	..	..	..	5viij.

I had the prescription to dispense, and read the third ingredient to mean vinegar, B.P., without a doubt. It seems former dispensers have used acid. acet. dil.

Yours sincerely,

Swansea, July 13.

F. W. SAYERS.

[There is no question of the fact that, whatever "acetum destil." means elsewhere, in prescriptions it is acetum, B.P.]

123/63. *Creasote*.—There is no difficulty in getting 2 minims of creasote into a pill of 5-gr. size. Martindale's method makes the smallest pill. Warm together 24 minims of creasote and 24 gr. of powdered curd-soap till they combine, and as you have room add 12 gr. powdered liquorice-root and make into twelve pills.

Monckton Pills.

Acid. arsenios.	..	..	..	..	gr. iv.
Ferri redact.	..	..	..	..	gr. exliv.
Sacch. alb.	..	..	..	..	gr. c.

Ft. pil. exliv.

(Cox & Co., Brighton, No. 194.)

Bishop's Stortford.

S. T. MILBANK.

LEGAL QUERIES.

Immediate information on pharmaco-legal matters is available in "Pharmacy and Poison Laws of the United Kingdom," Alpe's "Handy-book of Medicine-stamp Duty," and THE CHEMISTS' AND DRUGGISTS' DIARY.

118/29. *Gilgen* asks:—"What is the position of holders of goods against manufacturers of which an injunction has been obtained? In case they are not sold, and not paid for, can they be returned to manufacturer?" [Where an injunction has been obtained by one rival manufacturer against another to prevent the latter from putting up his goods in such a manner as to be calculated to deceive unwary purchasers, the foundation of the action is fraud, using that word in its least objectionable sense. One of the first principles of law is that where a contract is induced by fraud or misrepresentation it is voidable by the innocent party. It follows, therefore, that if an innocent purchaser has brought goods from the wrong-doer, he can disaffirm the contract and return the goods. If, on the other hand, such purchaser attempts to sell such goods, the aggrieved manufacturer can obtain an injunction against him also, and this is the case whether the purchaser was aware of the imitation or not. Moreover, by retaining the goods after notice, the purchaser would practically affirm the contract, and lose the remedy he would otherwise have against his vendor.]

Referring to a legal answer in our issue of July 11, *Mr. John Leon*, of 23 Maida Hill West, states that he has registered the word "Court" for toilet-preparations, and intimates that he would move vigorously in the event of any infringement.

122/8. *Curious* asks whether a person who is a registered chemist and dentist is liable to prosecution for putting the letters "Ph.D." after his name though he is not a doctor of philosophy, his meaning being that he is a pharmacist and dentist. May we ask our correspondent if he is asking this question out of pure curiosity, or is he contemplating adopting the course suggested if he finds it not illegal?

121/39. *Rad. Gent.*—Your chance against the firm depends entirely on whether you could satisfy a county-court judge of their complicity in the transaction. Their conduct is suggestive, but we are afraid you have hardly sufficient evidence to go into court with. There seems to be some swindling somewhere, however, and we should advise you to make a statement of the case to the chief of police at Manchester, who may have had other complaints.

130/12. *Torrid.*—Communicate with the apprentice's parents or guardians. He would have to be persistently rebellious to justify you in cancelling his indentures.

131/23. *Qualified Chemist.*—The Pharmaceutical Society has obtained judgment from unqualified persons who sold arsenical fly-papers, but you must remember that many of the fly-papers now sold are prepared without arsenic. But as the sale you refer to only took place on July 11, and the attention of the Pharmaceutical Council to the circumstance has been promised, are you not a little too impatient in complaining of their inaction?

MISCELLANEOUS INQUIRIES.

119/54. *A. B. Bennett*—The liniments are wretched examples of pharmacy. A is liq. ammoniæ and olive oil coloured with ext. glycyrrh. liq. B consists mainly of turpentine, a little strong ammonia, and burnt sugar as colouring.

121/25. *Ignoramus.*—The Paste for Mounting Photographs is a well-made dextrin paste.

100/13. *W. J. Rugg.*—Oil for use in an Incubator is a heavy petroleum oil. There is no difficulty in obtaining it in England.

122/58. *Nella.*—Red-water Powder for Cows.—Your sample is similar to another for which we published on page 61, July 11, 1896. Kindly refer to it.

122/70. *Remo.*—You cannot make a satisfactory furniture-cream with paraffin-wax, as nothing will emulsify it. Your sample is intended for making a furniture-paste.

123/21. *Nankin.*—Our sample of Nankin Brown came from C. Faust & Co., 2 The Crescent, Tower Hill, E.C.

131/26. *Anti-patent.*—Our advertisement pages will give you the information you ask for.

129/33. *Victor* wishes some information regarding the tipping of clay pipes with varnish. Can someone assist him and give a formula?

INFORMATION WANTED.

The Editor invites, on behalf of inquiring subscribers, postcard replies to the following:—

129/32. What is liq. hæmatæ co.?

71/96. Haffenden's tincture, and the Newmarket stramonium-cigarettes for asthma: where obtainable?